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THE

ORIGIN

OF

84269

LAWS, ARTS, and SCIENCES,

AND THEIR

PROGRESS

AMONG

The moſt ANCIENT NATIONS,

VOLUME II.

From the Death of JACOB to the Eſtabliſhment of MONARCHY among the ISRAELITES.

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EDINBURGH:

Printed by ALEX. DONALDSON and JOHN REID.

For the TRANSLATOR.

Sold by A. DONALDSON.

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CORRIGENDA.

p. l.
40. 22. *for* them *read* him
154. 22. *for* is *read* are

The ORIGIN of LAWS, ARTS, and SCIENCES, and their PROGRESS among the moſt ANCIENT NATIONS.

INTRODUCTION.

THE ſpace of time which elapſed from the deluge to the death of Jacob, was, without contradiction, the moſt diſagreeable part of our work. We have not facts enow, nor ſufficient hiſtorical details, to frame an abſolutely clear idea of the human race in the firſt ages. We ought not indeed to promiſe ourſelves more in the infancy of the world; it is even more than one durſt hope for in times ſo remote. In ſpite of the ſcarcity of monuments, one may always have a glimpſe of the ſteps by which theſe people gradually aroſe to perfection.

We ſhall not be expoſed to the ſame inconveniencies in the ages of which I am going to give an account. Although in the number of facts which preſent themſelves, there are ſome greatly altered by fable, they afford, notwithſtanding, a great deal for the gratification of curioſity. Sufficient particulars have been tranſmitted to us of the ſtate of politics, arts, ſciences, commerce, navigation, and the art-military in ſome parts of Aſia, and in Egypt.

Greece, which until this time there has been ſcarce any notice taken of, begins now to fix our attention. In proportion as we come down from the ages near the deluge, we ſhall ſee arts and ſciences introduce themſelves into that part of Europe, and its inhabitants emerge from barbariſm.

The picture of all theſe different objects is not difficult to trace. The epochs of them are known, we are able to determine them; in a word, we may eaſily follow the progreſs of nations, determine exactly enough the degree of their knowledge, and eſtimate their ſcientifical attainments.

PART II.

From the death of Jacob to the eſtabliſhment of monarchy among the Iſraelites, containing about 600 years.

BOOK I.

Of Government.

THE hiſtory of the Upper Aſia will not afford us, in the courſe of the preſent æra, any inſight in politics, laws, and the form of government. The events that happened in that part of the world during the whole ſpace of time under our preſent examination, are abſolutely unknown. The hiſtory of Egypt is not quite ſo barren in thoſe times as that of the Upper Aſia; it will give us ſome aſſiſtance in each of the objects which I have juſt indicated: but Greece will abundantly repay us for the ſmall aſſiſtance which Aſia and Egypt will afford us for that period. The hiſtory of that part of Europe affords, in the ages we are now treating of, variety of events, of circumſtances and details, abundantly ſufficient to inſtruct us in the progreſs of laws and politics among the different people, known under the name of *Greeks*.

CHAP. I.

Of the Babylonians, and Aſſyrians.

WE have ſeen in the firſt part of this work, that Ninus had united the throne of Babylon to that of Aſſyria. We have there likewiſe ſeen, that, on the death of that prince, the vaſt empire formed by his conqueſts fell into the hands

CHRONOLOGICAL TABLE for the SECOND PART,

Which comprehends from the Death of JACOB to the Establishment of ROYALTY among the HEBREWS.

EMPIRES.

YEARS of the world	YEARS before J. C.	SACRED HISTORY.	YEAR before J. C.	EGYPT.	BABYLONIANS, ASSYRIANS, MEDES.	YEAR before J. C.	Kings of ARGOS.			YEAR before J. C.	Kings of LACEDEMON.	YEAR before J. C.	Kings of ATHENS.	YEAR before J. C.	Kings of THEBES.
2369.	1571.	Commencement of the oppression of the Israelites.	1659.	Sesostris reigns 59 years. We have nothing very certain of the names of the successors of Sesostris, nor of the duration of their reigns.	These three monarchies were then united under one and the same dominion, and formed what is commonly called the Assyrian Empire. I have already said, that we do not know the succession of kings which governed it to Sardanapalus. See b. 1. c. 1.	1677.	Criasus reigned .... 54 years.								
						1623.	Phorbas 35								
2433.	1635.	Birth of Moses.				1588.	Triopas .... 46 years.					1582.	Cecrops, come from Egypt, marries the daughter of Acteus who then reigned in Attica, succeeds him, builds Athens, and reigns 50 years.		
2473.	1531.	He slays an Egyptian, and flies into the land of Madian, to Jethro, whom he serves 40 years.		Kings uncertain.	Kings uncertain.	1542.	Crotopus .... 21.								
						1521.	Sthenelus ...... 11.			1516.	Lelex. We know not how long he reigned. It is the same with the greatest part of his successors.	1532.	Cranaus .... 9.		
						1510.	Gelanor some months. Danaus comes from Egypt, deprives him of the crown, and reigns 50					1523.	Amphiction .. 10.	1519.	Cadmus, come from Phœnicia, builds Thebes, and reigns ..... 62 years.
												1513.	Erichthon .. 50.		
2514.	1490.	Going out of Egypt.													
		The Israelites wander 40 years in the wilderness.									Myles.				
						1460.	Lynceus .... 41 years.				Eurotas.	1463.	Pandion .. 40 years.	1457.	Pelidor ......
2553.	1451.	Election of Joshua. Death of Moses.													
		Joshua governs ... 17 years.		Kings uncertain.	Kings uncertain.						Lacedæmon.				Labdacus .. 42 years.
2570.	1434.	Eleazar succeeds him.										1423.	Erechtheus . 50.		
						1419.	Abas .... 23.				Amycles.				
2599.	1405.	First servitude under Chusan King of Mesopotamia, it continues .. 8.												1416.	Laius ... 20.
2607.	1397.	Othniel delivers the Israelites, and governs them .... 72 years.				1396.	Proetus ..... 17 years.							1395.	Amphion ... 38 years.
						1379.	Acrisius ...... 31.				Argalus.	1373.	Cecrops II. .. 40 years.		
2661.	1343.	Second servitude under Eglon, King of Moab; it continues ... 18.				1348.	Perseus by mistake kills Acrisius his father, exchanges his kingdom with Megapentheus, King of Tyrinthea, and builds Mycenæ, which he makes the capital of his new kingdom.				Cynortas.			1358.	Laius ... 56.
2679.	1323.	Ehud delivers the Israelites, and governs them 20.		Kings uncertain.	Kings uncertain.						Œbalus.	1333.	Pandion II. .. 25.		
		Samgar succeeds him.					ARGOS.		MYCENÆ.		Hyppocoon.				
2699.	1305.	Third servitude under Jabin King of Hazor, it continues ... 20.				1348.	Megapentheus.	1348.	Perseus.			1308.	Egeus .... 48.		
							Anaxagoreus.		Mastor.						
2[illegible]19.	1285.	Deborah delivers Israel.					Alector.							1292.	Œdipus ... 38 years
									Electrion.						
2752.	1252.	Fourth servitude under the Midianites, it continues 8.					Iphis.				Tyndarus.	1260.	Theseus ... 30 years.	1254.	Etrocles .. 3.
								1280.	Sthelenus.						
2759.	1245.	Gideon delivers the Israelites, and governs them 9.					Sthenelus.							1251.	Laodamas .. 10.
		Abimelech his son usurps the government for .. 3.		Kings uncertain.	Kings uncertain.		Cylabaris.	1234.	Atreus.		Castor and Pollux.	1230.	Mnestheus .. 43.	1240.	Thersander .. 12.
									Thiestes.				*War of Troy.*	1217.	Tisamenes.
								1216.	Agamemn. 19 y.		Menelaus.	1207.	Demophon .. 33.		Autesion.
								1209.	Egisthes 7.						
2799.	1205.	Fifth servitude under the Ammonites, it continues ...... 18.						1202.	Orestes 70.						
2817.	1187.	Jephthah governs .. 6 years.										1174.	Oxynthas ... 12 years.		
2823.	1181.	Ibzan governs ... 7.					Orestes becomes King of Argos and Lacedæmon.					1162.	Aphidas .... 1.		Damasicton.
2830.	1174.	Elon governs ... 10.				1132.	Tisamenes his son reigns .... 3 years.					1161.	Thymætes ... 8.		
2840.	1164.	Abdon governs .... 8.										1153.	Melanthus .. 37.		Xanthus.
2848.	1156.	Eli governs ...... 40.		Kings uncertain.	Kings uncertain.		He is driven out by the posterity of Hercules, known in history under the name of the Heraclidæ. They marched under the conduct of three principal chiefs, Aristodemus, Temenes, and Chresphontes. These conquerors divided amongst them the countries which they had subdued. Temenes had Argolida. Mesenia fell to Chresphontes. Aristodemus dying during this expedition, his two sons, Eurysthenes and Procles, took his place, and had Lacania for their share. These princes did not think proper to divide the dominions which had been adjudged to them. They both governed them therefore conjointly with equal authority, each taking at the same time the title of King of Lacedæmon, and being acknowledged as such.					1116.	Codrus .... 20. After the death of this prince, Athens became a Republic. Two magistrates were chosen to govern the state, which were called Archontes. They were at first perpetual, that is to say, that he who was invested with that office, kept it during life.		At the death of this prince, Thebes became a Republic. We know not what was then the form of its government. We even lose sight entirely of the history of this city: it does not begin again to make any figure, till the time of Xerxes's expedition into Greece.
2869.	1135.	Prodigies of Samson.													
		Sixth servitude under the Philistines.													
2888.	1116.	Samuel governs ... 21.													

hands of Semiramis his conſort. From Ninias, ſon and ſucceſſor of Semiramis, to Sardanapalus, we find an aſtoniſhing vacuity in the hiſtory of Aſſyria and Babylon. There is nothing to be depended on in a ſeries of kings who had poſſeſſed the throne for above 800 years. They have indeed preſerved the names of the greateſt part of thoſe monarchs[a]; but that liſt has appeared ſuſpicious to ſome critics. They pretend to have diſcovered in it many marks of forgery[b]. However that may be, as there remain no monuments of thoſe princes[c], that diſcuſſion is of very little conſequence.

The obſcurity of their reigns is commonly attributed to the effeminacy and indolence which thoſe ancient monarchs are ſaid to have lived in; but perhaps that obſcurity ought to be attributed, leſs to the ſupineneſs of thoſe princes, than to the tranquillity they took care their people ſhould enjoy. The virtues of a quiet and peaceable life are not ſo ſtriking as the fame of military talents. Hiſtory takes very little notice of any thing but conqueſts and important revolutions, eſpecially when hiſtorians ſpeak of countries they are not intereſted in. We know nothing of the hiſtory of thoſe ancient people but from the Greek writers. The Greeks, a reſtleſs, unſettled people, eſteemed nations only as they were warlike. They have not condeſcended to write the peaceable reigns of the kings of Nineveh[d]: lovers of the mar-

[a] Euſeb. Chron. l. 2.; Syncell. p. 103. 108.-123.-147.-151.-154. 155.-159.-165.

[b] It has been pretended, that in the liſt given by Cteſias, there are a number of names which may very well have been borrowed from the Greek and Perſian, to form ſo long a catalogue. Sphaerus, Lampridas, Laoſthenes, Dercylus, are Greek names; Amyntas is the name of the kings of Macedonia; Arius is a name of the Spartan kings; Xerxes, Armamithres, Mithraeus, are Perſian names; Soſarmus is the name of a king of the Medes, according to Cteſias himſelf. See Montfaucon, hiſt. de Judith. p. 127. Yet one may excuſe Cteſias for giving Greek and Perſian names to many of the Aſſyrian kings, by ſaying, he had uſed thoſe names as he found them in the archives of Perſia, tranſlated from the Aſſyrian into Perſian. One might likewiſe ſay, that probably he tranſlated them into Greek himſelf, and explained them by other names which to him may have appeared equivalent. How many authors have taken the ſame liberty? Without ſpeaking of the Greeks and Latins, the hiſtory written by M. de Thou will alone furniſh us with many examples of names ſo diſguiſed that they can ſcarce be known.

[c] See our diſſertation on the antiquities of the Babylonians and Aſſyrians, &c.

[d] Diod. l. 2. p. 136.

vellous, they did not find in the hiſtory of the Aſſyrian monarchs thoſe ſhining events, which fix the attention of the readers, and ſtrike the writer's imagination. Extremely prejudiced in favour of the Egyptians, we may ſay, they would only know that people in all antiquity.

Yet we ought to think, that the ſucceſſors of Ninias were not abſolutely ſuch as they are repreſented. All the hiſtorians of antiquity acknowledge, that they knew of no monarchy that had ſubſiſted ſo long as that of the Aſſyrians[e]. Herodotus, who, of all the writers, allows the ſhorteſt duration to this empire, yet agrees, that the Aſſyrians had been maſters of Aſia for 520 years[f]. There is no mention made of any revolution during the courſe of ſo many ages. Could this empire have maintained itſelf for ſo long a ſpace of time without troubles and without revolutions, if the kings who governed it had been entirely abandoned to debauchery, and ſunk in effeminacy? Indeed, it ſeems probable, they only endeavoured to govern their people in peace; and, for that reaſon, the Greek hiſtorians thought them unworthy of notice, they found nothing remarkable to relate[g]. But ſhould we therefore deſpiſe theſe princes? Do the warlike inclinations of a monarch always make his people happy? Beſides, if it were ſo, we ſhould neceſſarily loſe ſight of the Babylonians and Aſſyrians, during all that ſpace of time which we ſhall run over in this ſecond part of our work.

CHAP. II.

Of the people of Paleſtine, and of Aſia Minor.

WE are better acquainted with the events which happened in the ſame ages, in that part of Aſia which is waſhed by the Mediterranean. We have ſeen in the preceding volume, that a ſhort time after the deluge, Paleſtine, and the borders of the Jordan, were inhabited by civilized

[e] Diod. l. 2. p. 137.; Dionyſ. Halicarn. l. 1. p. 2.
[f] L. 1. n. 95. [g] Diod. l. 2. p. 136.

nations;

nations; which, notwithſtanding, except the Sidonians, have made no great figure in hiſtory: moſt of theſe people were deſtroyed by Joſhua when he conquered Paleſtine. Thoſe to whom the Greeks gave the name of Phœnicians, were the only people who maintained themſelves. We will make them more particularly known, when we ſpeak of the ſtate of commerce and navigation in the ages which employ us at preſent.

The hiſtory of Aſia Minor, which till this time affords no materials for our work, preſents us now with objects moſt worthy our attention. Many ſtates, which are often mentioned in ancient hiſtory, ſprung up in that part of the world. The Lydians, the Trojans, the Phrygians, are well-known nations. It is true, that, the Trojans excepted, theſe monarchies, in the times we ſpeak of, were not very conſiderable; therefore we ſhall not dwell long upon them.

With reſpect to the Trojans, their empire was of pretty large extent. Many provinces were dependent on it. The whole maritime coaſt of the Helleſpont was ſubject to them [h]. All the writers of antiquity agree in giving a great idea of the grandeur of Priam [i]. Troy, the capital of his dominions, was a conſiderable city; his kingdom moreover appears to have been very flouriſhing; but we know nothing in particular of its form of government; we are ignorant of their laws. What one may ſay with the greateſt certainty is, that the crown was hereditary [k].

The throne was alſo hereditary in the other kingdoms of Aſia Minor. The way they relate how Gordius, whom we ought to look upon as the origin of the race of the

[h] Achilles, in the Iliad, ſays, that, by ſea, he had taken twelve cities from the Trojans, and eleven by land. l. 9. v. 328.

[i] The deſcription which Achilles made to Priam himſelf of the extent of the Trojan empire, gives us a great idea of it. Iliad. l. 21. v. 541. &c.

The epithet that Virgil gives Priam, is likewiſe a ſign that they looked on that prince as the moſt powerful monarch that then reigned in Aſia Minor.

. . . . . *Tot quondàm populis terriſque ſuperbum,*
Regnatorem Aſiæ. Æneid. l. 2. v. 559.

Strabo entitles Priam, King of kings. l. 13. p. 891.

[k] Diod. l. 4. p. 318. &c.

kings

kings of Phrygia, obtained the ſovereignty, ſhews us one of thoſe events, which, in the earlieſt times, gave birth to kingly government.

The Phrygians, like all other people, were ſome time without any form of government. Weary of the evils to which their domeſtic diſſenſions daily expoſed them, they conſulted the oracle, to know what the end of them would be. The anſwer was, that to elect a king was the only means of putting an end to their miſeries.

The Phrygians would know on whom they ought to fix their choice: The oracle ordered them to give the crown to the firſt perſon they ſhould meet going in a car to the temple of Jupiter. Scarce had they received this anſwer, when they met Gordius. They proclaimed him king upon the ſpot [l]. Gordius, in memory of that event, conſecrated to Jupiter the car in which he was when he was raiſed to the throne. The knot by which the car was yoked, was ſo artfully made, that it was not poſſible to diſcover where it began, or where it ended. This is the knot ſo well known in antiquity by the name of the Gordian knot. The oracle had declared, that he who could unlooſe it ſhould have the empire of Aſia [m].

After Gordius, his ſon Midas aſcended the throne, 1428 years before Chriſt [n]. The hiſtory, or rather fable, related of this prince, is too well known for me to dwell upon it. It was Midas who eſtabliſhed in Phrygia the ceremonies of public worſhip, which, ever after his reign, was there paid to the Divinity. He derived from Orpheus the knowledge of theſe religious offices [o]. Hiſtory remarks that thoſe ſentiments of religion with which he inſpired his people, contributed more to ſtrengthen his authority, than the power of his arms [p].

[l] Juſtin, l. 11. c. 7.; Arrian. de exped. Alex. l. 2. p. 86.
Arrian deceives himſelf in referring to Midas what has been read of Gordius. The greateſt number of writers agree to acknowledge Gordius for the firſt king of Phrygia.
[m] Arrian, *loco cit.* p. 87.
[n] See the memoirs of the academy of inſcriptions, t. 9. p. 126.; Euſeb. Chron. l. 2. p. 86.
[o] Conon apud Phot. narrat. 1. p. 421.; Juſtin l. 11. c. 7.; Ovid. Metam. l. 11. v. 93.
[p] Conon, Juſtin. *loco cit.*

This

This is all that the hiſtory of Aſia can ſupply us with on the ſubject we are at preſent employed about. The maxims, the political and civil laws of the people of whom we are ſpeaking, are abſolutely unknown to us. We cannot even form any idea of them. Materials are entirely wanting. Yet we muſt except the Lydians. Herodotus acquaints us that their laws were the ſame with thoſe of the Greeks [1].

But, if we were to turn our attention to the Hebrew nation, we ſhould find materials in abundance to make us amends for the want of them in the other nations of Aſia. From their going out of Egypt the Iſraelites began to form themſelves into a nation, diſtinct by their laws, and by their cuſtoms, from all the reſt of the earth; a nation which ſubſiſts at this day; and which is ſtill governed by its own particular cuſtoms, though diſperſed throughout all the countries of the univerſe.

The political and civil laws of the Hebrews are perfectly known to us; ſo well indeed, that it is not worth while to enumerate them. Beſides, we ought not to make any compariſon between the form of government eſtabliſhed by Moſes, and the other ſpecies of governments, of which hiſtory gives us examples. The Hebrew people had the ſingular advantage of having God particularly for their monarch, and for their legiſlator. It was from God himſelf that this nation had received its laws. In a word, it was the Supreme Being who condeſcended to preſcribe the ceremonies of the worſhip that he would have paid him by the Iſraelites. We ought therefore to make no compariſon between the laws of this people, laws dictated by wiſdom itſelf, and thoſe that could be obſerved by other nations. The precepts of the decalogue alone, contain more ſublime truths, and maxims more eſſentially promotive of the good of mankind, than all the profane writings of antiquity could afford. The more we meditate on the laws of Moſes, the more we ſhall perceive their wiſdom, and inſpiration; that infallible ſign of the Divinity which ſails all human works, in which, when we examine criti-

[1] L. 1. p. 54.

cally,

cally, we always find great defects: beſides, the laws of Moſes alone have the ineſtimable advantage, never to have undergone any of the revolutions common to all human laws, which have always demanded frequent amendments; ſometimes changes; ſometimes additions; ſometimes the retrenching of ſuperfluities. There has been nothing changed, nothing added, nothing retrenched from the laws of Moſes; a ſingular example, and ſo much the more ſtriking, as they have preſerved their purity for above 3000 years. If Moſes had not been the miniſter of God, he could not, whatever genius we may ſuppoſe him to have had, from himſelf have drawn laws which received all their perfection the inſtant of their formation: laws which provided againſt every thing that could happen in the ſucceſſion of ages, leaving no neceſſity for change, or even for modification. That is what no legiſlator has ever done, and what Moſes himſelf could not have done, had he writ ſimply as a man, and had he not been inſpired by the Supreme Being[r].

I ſhall obſerve further, that the alliance made in the deſert between God and the Iſraelites, may be looked upon as a model of the forms they uſed to obſerve in contracting theſe ſorts of engagements.

Of all the ceremonies anciently uſed in ſolemn alliances, the effuſion of blood appears to have been the moſt important, and the moſt univerſal. St Paul ſays, "For when Moſes had ſpoken every precept to all the people according "to the law, he took the blood of calves and of goats, "with water, and ſcarlet wool, and hyſſop, and ſprinkled "both the book and all the people, ſaying, This is the "blood of the teſtament which God hath injoined unto "you[s].

Profane hiſtory affords us as plain a proof of this ancient cuſtom, which regarded the ſhedding of blood, as the ſeal of all the covenants they contracted. Herodotus, ſpeaking of a treaty of peace concluded between the Medes and the

[r] Voy. Jaquelot. diſſertation 3. ſur l'exiſtence de Dieu, chap. 4. 7. 8. 9. et traité de la verité et de l'inſpiration des livres ſacrés, t. 1. chap. 8.

[s] Heb. chap. 9. ver. 19. Voy. le P. Calmet, *loco cit.* et t. 2. p. 52. et 223.

Lydians,

Lydians, by Cyaxarus and by Aliattes, obſerves, that with theſe people, beſides the other ceremonies common to them and the Greeks, the contracting parties uſed to make inciſions on the arms, and mutually to ſuck the blood that ran from them [t].

We find, even among the ſavages, an example of thoſe ancient ceremonies uſed in treaties of peace and alliance. The Spaniards, in 1643, made a treaty of peace with the Indians of Chili; they have preſerved the memory of the forms uſed at the ratification: it is ſaid, that the Indians killed many ſheep, and ſtained in their blood a branch of the cane-tree, which the deputy of the Caciques put into the hands of the Spaniſh general, in token of peace and alliance [u].

As to the manner of ratifying alliances, the cuſtom then was to write two copies of their contracts: the one of the copies they folded up and tied, and ſealed it with the ſeals of the contracting parties: the other was neither folded nor ſealed; it remained open, in order that recourſe might be had to it on occaſion. The orders that Moſes received from God with regard to the tables of the law, and the manner in which that legiſlator executed them, prove the cuſtom of having two copies of the contracts they made. The tables of the law which Moſes received on Mount Sinai, was the authentic copy where God had written the conditions of the alliance which he made with his people. God ordered that theſe two tables ſhould be put into the ark [x]. Moſes, at the ſame time, taking care to write a duplicate of the ſame commandments, placed it at the ſide of the ark [y], that they might conſult it, and eaſily take copies [z].

Such like forms muſt, without doubt, have been in uſe, with reſpect to particular contracts, with all the nations to whom alphabetic writing was then known. We may, by comparing the practice I have juſt ſpoke of, with thoſe I

[t] L. 2. n. 74.
[u] voyage de Frizier, p. 73.
[x] Exod. chap. 25. ver. 16.
[y] Deut. chap. 31. ver. 26.
[z] See the commentaries of Father Calmet, and his diſſertation on the form of ancient books.

have mentioned in the firſt part of this work, as having been uſed originally [a], perceive the difference which alphabetic writing has introduced, with reſpect to the meaſures taken for the ſecurity of acts and contracts, among civilized nations.

CHAP. III.

Of the Egyptians.

IN the firſt part of this work I have ſhewn the origin and the conſtitution of government among the Egyptians; but I have entered into no particulars of the reigns and perſons of the monarchs who poſſeſſed the throne in the ages we were then treating of: but it will not be ſo at preſent. The reign of Seſoſtris, with whom begins this ſecond part of the hiſtory of Egypt, is too remarkable an æra not to demand a particular account of a monarch ſo famous in antiquity. Of all the kings of Egypt the actions of Seſoſtris were the moſt grand and moſt memorable [b]: he equally ſignalized himſelf in peace, in war, and in arts. This prince aſcended the throne 1659 years before Chriſt [c].

Seſoſtris was born with all the qualities which can form a great monarch. The education he received was moſt proper to ſecond theſe happy diſpoſitions. They ſay, that the King his father cauſed to be brought to court all the male infants born in Egypt the ſame day with his ſon [d]; he gave to them all, not excepting the young prince, an education perfectly equal and uniform. They were enured to labour and fatigue by all ſorts of exerciſes; they gave them nothing to eat till they had previouſly made out a conſiderable walk on foot [e]. Such was the education of Seſoſtris and all his

[a] Book 1. chap. 1. [b] Diod. l. 1. p. 62.

[c] I have followed, for the reign of Seſoſtris, the chronology of P. Tournemine. See his diſſertat. ad calcem Menochii, in fol. Paris, 1719. diſſert. 5.

[d] Dio l. 1. p. 62.

The Natches, a people of South America, have the ſame cuſtom with reſpect to the heir-apparent. Lettr. edif. t. 22. p. 252.

[e] Diodorus ſays, one hundred and eighty ſtadia; an incredible number, to take them, as is common, twenty-four ſtadia to a league, for then they muſt have

his companions. Hiſtory adds, that they remained inviolably attached to him, and that he choſe from this body the principal officers of the army which he raiſed for his grand expeditions [f]. They were ſaid then to have conſiſted of 1700 [g]; let us pauſe a little upon this fact.

Diodorus does not aſcertain the number of male infants born in Egypt the ſame day with Seſoſtris; but he gives room to gueſs it, by ſaying, that when that monarch began *his conqueſts, they were then 1700. For one cannot preſume, that there were only 1700 male-children born in Egypt the ſame day with Seſoſtris*; and we ought ſtill leſs to ſuppoſe, that in caſe there were only 1700, they ſhould all come to manhood. Seſoſtris could not be much leſs than forty years of age when he undertook his expedition, ſince he was determined to it by the counſel of his daughter Amyrta [h]. For we know from experience, that out of a thouſand children, born at the ſame time, there will remain but little above one third at the end of forty years [i]. Therefore, as there ſtill remained 1700 of the companions of Seſoſtris, at the time of his expedition, it muſt have been, that the number of males born in Egypt the ſame day with this prince, amounted to more than 5000; and this appears to me highly improbable.

It has been obſerved, that there are very few more boys born than girls; the whole number of children, then, born the ſame day with Seſoſtris, ſhould amount to more than 10,000. Howſoever peopled that country was anciently, how can one perſuade one's ſelf that it was ſo populous, that there could be born on each day more than 10,000

have gone ſeven leagues and an half. But we know, that the value and meaſure of the ſtadia was as different and equivocal among the ancients as the meaſure of miles and leagues among the moderns. We know that they had ſhort ſtadia, eleven hundred and eleven to a degree; therefore one hundred and eighty ſtadia, reckoning two thouſand two hundred eighty two fathoms to a league, of twenty-five to a degree, make four leagues and ſome fathoms. This valuation makes the fact ſpoken of by Diodorus a little leſs incredible.

[f] Diod p. 64. [g] Ibid. [h] Ibid.

[i] Journal des ſavans, Aout 1666, art. 1.; Tables de M. Dupre de S. Maur, rapportees, &c. 2d tome de l'hiſt. nat. du cabinet du Roi, par M. Buffon, p. 592. et ſuiv.

children? One may, by a compariſon of what happens in our times in France, make this very plain.

In examining the number of children born in Paris in a year, we ſee, for example, that in 1750 they amounted to 23,104 [k], which gives 63 or 64 for each day; and we may obſerve that there were a few more boys than girls: thus we may fix the number of males born in Paris each day at 32 or 33. Paris contains about 700,000 ſouls [l]. But we ought to take from this number the monks, the nuns, the eccleſiaſtics, old men, infants, and that immenſe number of people of all ſorts who live unmarried. I think I ſhall not go too far if I reduce to 400,000 ſouls all the perſons capable of having children. We have ſeen that there were only born in Paris 32 or 33 males each day; we therefore can, after this calculation, determine the number that could be born in Egypt, more eſpecially as the Egyptians could only marry one wife [m].

Following the moſt exact reſearches, Egypt contained under its firſt kings 27,000,000 of inhabitants [n]. Every body married in thoſe countries; the women were prodigiouſly fruitful [o], and were obliged to bring up all their children, even thoſe that ſprung from illicit commerces [p]. For this reaſon, in order to render the account which I would eſtabliſh more plain, and make a ſort of compenſation, I will calculate the number of children which could be born in Egypt each year from theſe 27,000,000 of inhabitants, whom I may well ſuppoſe to be the number of perſons capable of having children; and however advantageous that ſuppoſition may be to Egypt, yet we ſhall want many to approach the number which the 1700 companions of Seſoſtris neceſſarily demand.

In effect, even ſuppoſing in Egypt 27,000,000 of inhabitants capable of having children, it reſults from the obſervations which I have juſt made, that there could not be

[k] Mercure de France, Janvier 1751.
[l] Voy. le diction. de la Martiniere, au mot Paris.
[m] Herod. l. 2. n. 92. [n] Mem. de Trevoux, Janv. 1752. p. 32.
[o] Strabo, l. 5. p. 1018. B. See alſo the notes *ad hunc loc.*
[p] Diod. l. 1. p. 31.

born

born in a day more than 4320 children; a number ſufficiently diſtant from 10,000, to which the relation of Diodorus neceſſarily brings us. Above half is then wanting to bring us to an equality. To obtain that, we muſt ſuppoſe more than 60,000,000 of inhabitants in Egypt, a number too exceſſive ever to be admitted. I hope to be pardoned for this ſmall digreſſion: I return to Seſoſtris.

This monarch had ſcarce aſcended the throne, when he did all in his power to render Egypt more powerful and more formidable than it had ever yet been: his ambition propoſed nothing leſs than the conqueſt of the univerſe. But before he put in execution his vaſt projects, he began by correcting and perfecting the interior government of his kingdom. I ſhall ſpeak in its proper place of his grand expeditions, and military regulations. We ought at preſent only to conſider Seſoſtris in the light of a legiſlator: his political eſtabliſhments ought to be our only object.

I ſaid elſewhere, that from all antiquity Egypt was divided into ſeveral provinces [q]. Ancient authors agree in this; but we cannot exactly diſcover what were their preciſe number before Seſoſtris. That prince fixed them at thirty-ſix. He divided all Egypt, ſay the ancient hiſtorians, into thirty-ſix *nomes*, or diſtricts [r], and gave the government of them to as many perſons, on whom he could depend. They levied the King's taxes, and regulated all the affairs which happened in their juriſdiction [s].

Seſoſtris further divided, according to Herodotus, all the lands of Egypt into ſo many portions as there were inhabitants; each had an equal portion of land for paying a certain rent annually. If the poſſeſſions of any one were leſſened or damaged by the Nile, he went to the King, and declared the loſs he had ſuffered. The King cauſed it to be meaſured, to know how much it was diminiſhed, and proportioned

[q] Part 1. book 1.

[r] Diod. l. 1. p. 64. The term *nome*, uſed to denominate the different cantons of Egypt, is a term invented by the Greeks when they were maſters of it under Alexander. The Romans afterwards called the ſame diſtricts, *prefectures*, when they brought Egypt under their command in the time of Auguſtus.

[s] Diod. l. 1. p. 64.

the

the tribute to the quantity of land that remained to the proprietor [t].

Of all the political inſtitutions attributed to Seſoſtris, the moſt remarkable, in my opinion, is the diſtribution he made of all his ſubjects into different claſſes or ſtates [u]. They reckoned in Egypt ſeven different orders, who took their names from the profeſſion which each order exerciſed [x]. By this eſtabliſhment the different profeſſions of each member of the ſtate were ſeparated and diſtinguiſhed from each other. The Egyptians could not take upon them indifferently the profeſſion for which they had the greateſt liking; the choice was not left to their diſpoſal: the children were obliged to be of the profeſſion of their fathers [y]. They ſeverely puniſhed whoever quitted it to embrace another [z]. We ſhall again have occaſion to ſpeak of this political inſtitution. I reſerve likewiſe for the article of war the military laws publiſhed by Seſoſtris. The Egyptians attribute to this prince the greateſt part of the rules concerning the troops and the diſcipline of armies [a].

Seſoſtris has been placed in the number of the moſt famous legiſlators [b]; the Egyptians, to ſhew how perfectly that prince knew the ſcience of government, ſaid, that he was taught by Mercury politics and the art of governing [c]. They always held his memory in the higheſt veneration, as one may judge from what I am going to relate.

When Egypt, many ages after Seſoſtris, was fallen under the dominion of the Perſians, Darius, father of Xerxes, would have his ſtatue placed above that of this prince. The high prieſt, on the part of the whole college aſſembled on the ſubject, oppoſed the deſign of Darius, repreſenting to him, that he had not yet ſurpaſſed the actions of Seſoſtris. Darius was not offended at the liberty of the high

[t] L. 2. n. 109.
[u] Ariſt. polit. l. 7. c. 10. init.; Dicaearchus apud ſchol. Apollon. Rhod. l. 4. v. 273.
[x] Herod. l. 2. n. 163.
[y] Plato in Tim. p. 1044.; Iſocrat. in Buſirid. p. 328. 329.; Diod. l. 1. p. 86.
[z] Diod. *loco cit.* [a] Diod. l. 1. p. 106. [b] Ælian. var. hiſt. l. 12. c. 4.
[c] Ariſt. polit. l. 7. c. 10.; Diod. l. 1. p. 105. 106.

prieſt

prieſt [d]. He only anſwered, that he would endeavour to attain to the glory of that hero, if he lived to his age [e].

Seſoſtris died after a reign of 33 years [f]; his ſon ſucceeded him [g]. Hiſtorians agree in ſaying, that he did nothing remarkable [h]. He was, in that, like the reſt of the monarchs who poſſeſſed the throne of Egypt, from Seſoſtris to Bochoris, whoſe reign falls in the year 762 before Chriſt We do not know poſitively the names, and ſtill leſs the actions of moſt of theſe princes. Egypt therefore will ſupply us with nothing for our reſearches for a long ſucceſſion of ages.

CHAP. IV.

Of Greece.

I Need not repeat what I have ſaid, in the firſt part of this work, of the ſtate of the ancient inhabitants of Greece. We there have ſeen to what a pitch they were originally rude and barbarous. The reader will not have forgot, that this part of Europe owed the firſt knowledge of ſcience it poſſeſſed to ſtrangers, who going out of Egypt, formed there a very extenſive empire, though of a very ſhort duration. Other colonies paſſed ſucceſſively into Greece. I have not indeed been very particular about their firſt eſtabliſhments. Marking the æra, and telling the names of the authors of them, was all that I had to do.

Theſe firſt colonies had done little or nothing to civilize the Greeks. Theſe people did not begin to be poliſhed till near the times we are at preſent engaged in. This happy change was the work of new colonies which came then from Egypt and Phenicia into Greece. The conductors of thoſe laſt emigrations taught the ancient inhabitants of the country to uſe more form and more order in their ſocieties. They founded different kingdoms, which ſubſiſted a long time with great reputation. We will run over the hiſtory

[d] Herod. l. 2. n. 110.; Diod. l. 1. p. 63. [e] Diod. ibid.
[f] Diod. l. 1. p. 69. [g] Idem, ibid.; Herod. l. 2. n. 111. [h] Idem, ibid.

of

of them, obſerving the order of time, and the importance of the ſubjects.

ARTICLE I.

ATHENS.

IN the preceding volume I have touched upon the origin of the kingdom of Athens. I there remarked, that Attica had not been expoſed to the ſame commotions as the other governments of Greece [i]. The inhabitants nevertheleſs had not profited from the tranquillity they enjoyed, ſo much as to be any way poliſhed. The Athenians remained a long time barbarous and rude, ignorant of the moſt neceſſary arts, living without laws, and without diſcipline. Attica was nothing before the foundation of Athens.

That famous city, to which all Europe owes the origin of its laws, its arts and ſciences; Athens, the ſeat of politeneſs and learning, the theatre of valour and eloquence, the public ſchool of all who aſpired to knowledge; Athens more famous, by the genius of its inhabitants, than Rome by its conqueſts, owed its foundation to Cecrops, originally of Sais, a city of the Lower Egypt [k].

Cecrops arrived in Attica 1582 years before Chriſtianity [l]. He was well received by Acteus, who then reigned in that diſtrict. That prince even gave him his daughter in marriage, and after the death of Acteus Cecrops ſucceeded him [m]. As ſoon as he aſcended the throne, he laboured to poliſh his ſubjects, by acquainting them with the advantages of living in ſociety. When Cecrops came into Attica, that part of Greece was a prey to the ravages and incurſions of pirates and robbers. The people of Bœotia, whom they then called *Æones*, deſolated the country by perpetual incurſions [n]: the Carians on the ſea-coaſt were always pillaging [o]. Cecrops

[i] Part 1. book 1.
[k] Diod. l. 1. p. 33.; African. apud Euſeb. praep. evang. l. 10. c. 10. p. 491.
[l] Marm. Oxon. ep. 1. [m] Apollod. l. 3. p. 192.; Pauſ. l. 1. c. 2.
[n] Philicor. apud Strab. l. 9. p. 609. [o] Idem, ibid.

repreſented

repreſented to his new ſubjects, that the only way to reſiſt ſuch violences, was to aſſemble and unite their forces. He ſhewed them to build houſes; and founded a city, which he called after himſelf *Cecropia* [p]. Laſtly, to put his new eſtabliſhment in abſolute ſecurity, he built a fortreſs on a riſing ground, where they afterwards built the temple of Minerva [q]. Such is the epocha of the birth of Athens.

The name of that city is famous in ancient ſtory, by an event that is ſtrangely diſfigured by fable, but which, however, deſerves to be related, on account of the remarkable change it occaſioned in the form of government.

Antiquity ſays then, that Cecrops, in building the walls of Athens, ſaw ſtart out of the earth in a moment an olive-tree and a fountain. Struck with theſe prodigies, he ſent to Delphos to aſk of Apollo what they ſignified, and what he was to do. The oracle anſwered, that Minerva, who was deſigned by the olive-tree, and Neptune, by the water, claimed reciprocally the right of naming the city they had built, and that the people were to decide the difference. On this anſwer Cecrops aſſembled all his ſubjects, men and women; for, at that time, the women had a right to vote in public deliberations. Minerva carried it only by one vote; and that, they ſay, was a woman's [r].

A little while after, Attica having been greatly damaged by the waters, the Athenians imagined that Neptune was enraged, and wanted to be revenged. To appeaſe him, they reſolved to puniſh the women on account of the preference they had given to Minerva; they determined, that for the future

[p] Apollod. l. 3. p. 192.; Plin. l. 7. ſect. 57. p. 413.

[q] Thucyd. l. 2. p. 110.; Plin. *loco cit.* Anonym. de incredib. c. 1. p. 85.; Valer. Maxim. l. 5. c. 3.; Exern. n. 3. p. 465.

[r] Varro apud Auguſt. de civit. Dei, l. 18. c. 9.

We ought not to be ſurpriſed, that, in the firſt ages, the women among the Greeks were admitted into their public aſſemblies, and had a right to vote: they enjoyed the ſame advantage among many other nations of antiquity. The women were admitted in our national aſſemblies by our anceſtors the Gauls, and they took no reſolution without their advice. It was the ſame with the ancient people of Germany. Plut. t. 2. p. 246. C.; Tacit. de morib. Germ. n. 8.; Polyaen. Strat. l. 7. c. 50.

they ſhould not be admitted into the aſſemblies, nor any child from that time bear the name of its mother [c].

Some ancients ſay, that Cecrops built twelve cities, or, to ſpeak more properly, twelve towns [d]: but it appears to me much more likely to give the foundation of theſe twelve cities or towns to Cecrops II. the ſeventh king of Athens. This is the opinion of many of the moſt eſteemed modern critics [e]. It was not practicable in thoſe early times to found twelve towns at the ſame time; it was enough for Cecrops to be able to form one, with a people ſo rude as the Athenians were then. One may preſume, that the founding of Athens was ſoon followed by that of ſome other cities or towns. We are ſo much the more authoriſed to believe it, as the Athenians were looked upon as the firſt people of Greece who eſtabliſhed capital cities [f].

One of the firſt cares of Cecrops was the inſtitution of public worſhip rendered ſolemnly to the Deity. He applied himſelf to regulate the ceremonies of religion. Not but the firſt inhabitants of Greece had ſome ſort of worſhip, but it appears that they had no ſufficiently clear and diſtinct idea of the Divinity, and of the homage due to him [g]. We therefore ought to look upon Cecrops as the firſt who gave any certain form to the religion of the Greeks [h]. Pauſanias ſays, that this prince regulated the worſhip of the gods and religious ceremonies with great wiſdom [i]. He taught the Greeks to call Jupiter the Supreme God, or rather Moſt High [k]. He firſt erected an altar at Athens [l], and forbade them to ſacrifice to the gods any thing that had life [m].

[c] Varro apud Auguſt. *loco cit.*
One may ſee the different explications given to this hiſtorical fable, Voſſius de idol. l. 1. c. 15 Le P. Tournemine, Trevoux, Janvier 1728. L'Abbé Banier explicat. des fables, t. 4. p. 20.
[d] Philicor. apud Strab. l. 9. p. 639.
[e] Meurs de regn. Athen. l. 2. c. 14; Potter, Archaeol. Gr. l. 1. c. 2. p. 7.
[f] Stephan. voce Ἀθῆναι, p. 28.
[g] Voy. Banier explicat. des fables, t. 6. p. 248. & ſuiv.
[h] Hiſtor. orig. l. 8. c. 11. [i] L. 8 c. 2. *init.*
[k] Theatr. Had.; Euſeb. præp. evang. l. 10. c. 9.
[l] Euſeb. ibid.; Macrob. Sat. l. 1. c. 10. [m] Pauſ. l. 8. c. 2. *init.*
There is on this ſubject a very remarkable difference of opinion among ancient writers; but the contradiction is only in appearance. Meurſius has ſufficiently proved it, de regib. Athen. l. 1. c. 9.

To

To ſecure the foundations of his new eſtabliſhment, and to finiſh the civilizing of his people, Cecrops laboured to give them laws. The firſt and moſt important was that of marriage [e]. Before Cecrops the Greeks had no idea of conjugal union: they gratified their deſires indiſcriminately. The children which ſprung from theſe irregular commerces, never could know who were their fathers, and could only know their mothers, whoſe name they always bore [f]. Cecrops ſhewed the Athenians the inconveniencies ariſing to ſociety from ſuch an abuſe. He eſtabliſhed the laws and rules of marriage in the form they were practiſed in Egypt, that is to ſay, that one man ſhould only have one woman [g].

The laws would not have been of any great ſervice, if he had not had perſons charged with the execution of them. It was in this view that Cecrops eſtabliſhed courts to determine the differences that might happen among his ſubjects. The Athenians found this eſtabliſhment ſo wiſe and ſo neceſſary, that afterwards each town of Attica had its magiſtrates to preſerve peace and good government, and had places ſet apart ſolely for that buſineſs [h]. Of all the tribunals ſet up by Cecrops, the moſt famous was that afterwards called *Areopagus* [i]. We ſhall ſpeak more particularly of it under the reign of Cranaüs, ſucceſſor of this prince.

Cecrops likewiſe diſtributed into four tribes all the inhabitants of Attica [k]. It is probable he made this diviſion on the plan of the diſtinction of profeſſions eſtabliſhed in Egypt by Seſoſtris [l]. We ſhall, in the ſequel, have an opportunity of ſeeing many other conformities between the policy of the Athenians and Egyptians.

[e] Juſtin. l. 2. c. 6.; Athen. l. 13. *init.*; Suidas, *voce* προμ. t. 3. p. 189.

[f] Varro apud Auguſt. de civ. Dei. l. 18. c. 9.; Suidas, *loco cit.*

[g] Herod. l. 2. n. 92.; Suidas, *loco cit.*

[h] Thucyd. l. 2 p. 108.; Plut. in Theſ. p. 11. A.

[i] The ancients are divided about the time of fixing the inſtitution of the Areopagus: but ſince the diſcovery of the Arundelian marbles, we can aſcribe this eſtabliſhment to none other but to Cecrops; ſince, in the reign of Cranaüs his ſucceſſor, that tribunal was in ſuch high reputation, that Neptune and Mars choſe them arbitrators of their difference. Marm. Oxon. ep. 3.

[k] Pollux, l. 8. c. 9. ſegm. 109. Others refer this inſtitution to the reign of Erechtheus.

[l] See Diod. l. 1. p. 33.

The manner of burying the dead has always been looked upon as one of thoſe cuſtoms which diſtinguiſh policed people from nations abſolutely barbarous and ſavage. All legiſlators have taken particular care to preſcribe to their people the rules which ought to be obſerved on theſe ſorrowful occaſions [m]. Antiquity attributes to Cecrops the inſtitution of funeral ceremonies in Greece. Cicero ſays, that this prince introduced the cuſtom of burying the dead, and of ſtrewing corn upon their graves [n].

In thoſe remote times kingdoms were of very ſmall extent; one city, on which ſome villages and ſome leagues of territory depended, often compriſed the whole domain of theſe firſt kings. By what an ancient author relates of the roll of the inhabitants of Attica, taken by Cecrops, one may judge of the power and the ſtrength of thoſe ancient kings. Cecrops, to know the number of his ſubjects, ordered that each ſhould bring a ſtone to a certain place which he appointed; when all had obeyed, they counted the ſtones, and found twenty thouſand [o].

This is all that hiſtory informs us of the actions of Cecrops, who reigned fifty years after his arrival in Greece [p]. Fable has made this prince a monſter compoſed of two different ſpecies. The ancients have aſſigned many motives for this allegory. Some have explained it from the inſtitution of marriage, which in ſome ſort compoſed a man of two different bodies: others have explained it from his foreign birth: others from the largeneſs of his body: and, laſtly, ſome becauſe he ſpoke two languages, Egyptian and Greek, and that he knew the manners of both nations [q].

Cecrops had, by his marriage with the daughter of Acteus, only one ſon, named *Eryſichthon* [r]. This prince died before his father [s]. Cranaüs, a Greek, and an Athenian by birth [t],

[m] Plato de repub. l. 4. p. 636. B. De leg. l. 1. p. 774. A.

[n] De legib. l. 2. n. 25. t. 3. p. 158.

The Greeks afterwards thought proper to burn their dead. *Vide* Hom. Iliad. et Odyſſ. *paſſim.*

[o] Philicor. apud Scholiaſt. Pindar. Olymp. ode 9. ver. 68. p. 109.

[p] Suidas in Προμηθ. t. 3. p. 189. [q] See Marſh. p. 109.

[r] Pauſ. l. 1. c. 2. p. 7. [s] Idem, ibid.

[t] Apollod. l. 3. p. 193.; Pauſ. *loco cit.*

finding

finding himſelf, at the death of Cecrops, the moſt eminent and moſt powerful man in the city, ſeized on the throne. We ſhould have had little to ſay of his reign, if the marbles had not placed under this prince two events very famous in antiquity.

The firſt is the judgment given by the Areopagus between Neptune, ſovereign of a part of Theſſaly, and Mars, who likewiſe reigned over many diſtricts of that province. The murder of Hallirothius, ſon of Neptune, killed by Mars, made theſe two kings appeal to the judgment of the Areopagus. As this judgment is the firſt and the moſt celebrated that was given by this grand aſſembly [u], it is right to relate it.

The Areopagus, inſtituted by Cecrops on the plan of the tribunals of Egypt, was not long of riſing to very great reputation. Strangers, even ſovereigns, came to ſubmit to its deciſions. It was principally for the examination of murders, that the Areopagus had been eſtabliſhed [x]. Hallirothius, ſon of Neptune, having abuſed Alcippa, the daughter of Mars, this prince, enraged at ſo ſcandalous an affront, revenged himſelf by the death of Hallirothius. This violent proceeding might have had terrible conſequences. To avoid which, Mars and Neptune ſubmitted their difference to the deciſion of the Areopagus. The ſenate being aſſembled, after having heard the reaſons on both ſides, they determined, that the revenge of Mars did not exceed the outrage he had received in the perſon of his daughter [y]. This judgment was found ſo juſt, that to extol the abilities of thoſe who had given it, they ſaid that twelve gods had mingled among the number of the ſenators [z]. It was on this occaſion, that the Areopagus received the name which it has always borne ſince [a].

[u] Marm. Oxon. ep. 3.; Plin. l. 7. ſect. 57 p. 415.; Pauſ. l. 1. c. 21.

[x] Solon conſiderably extended the juriſdiction of this court, he gave it the inſpection of the whole ſtate.

[y] This was the firſt proceſs for murder which was judged at Athens. Pauſ. l. 1. c. 21.; Plin. l. 7. ſect. 57.; Liban. declam. 22. 23.

[z] Apollod. l. 3. p. 193.

[a] Marm. Oxon. ep. 3.; Euſeb. chron. l. 2. p. 36.; Serv. ad Georg. l. 1. v. 18. The ancients do not entirely agree about the etymology of the word *Areopagus*. Voy. les. mem. de l'acad. des inſcrip. t. 7. mem. p. 175.

At

At the beginning, the members of this famous tribunal were choſen from the moſt prudent and judicious perſonages of the city. Authors do not agree as to the number of judges which compoſed it [b]; which makes me believe, that it varied at different times. The edifice where the Areopagus aſſembled in the beginning, was very plain and mean [c]. It was placed in the middle of Athens, on a hill, ſituated oppoſite to the citadel [d]. That poſition muſt have been very inconvenient for old men, who could not get up, but with difficulty [e]. This determined the Areopagi to remove their tribunal to a part of the city called *the King's portico* [f]. It was a place expoſed to all the injuries of the weather [g]. The judges repaired thither in great ſilence. As ſoon as they were all met, they ſhut themſ up in a circle, marked by a ſort of rope with which they incloſed them [h]. They ſat there on ſeats of ſtone, holding in their hand, as a mark of their character, a ſort of baton, made in the form of a ſceptre [i].

Homer ſhews the antiquity of theſe uſages. Among the different ſubjects repreſented on the ſhield of Achilles, we ſee the judges employed in the function of their office. The poet painted them ſitting in a circle, in the midſt of a public ſquare, upon finely poliſhed ſtones, and bearing a ſceptre in their hand when they gave their opinions [k]. There is room to believe, that, in this picture, Homer has conformed himſelf to the practice of the Areopagus. Pauſanias ſays the ſame of this ancient ſimplicity: when ſpeaking of this tribunal, he ſays, in the court were ſeen two ſorts of ſilver ſtones, cut in form of ſeats or benches [l]. The expreſſion he uſes is remarkable; he calls them, *ſilver ſtones* [m]; a proof that, in thoſe early times, ſtones were the only ſeats they uſed in the Areopagus [n].

[b] Voy. les. mem. de l'acad. des inſcript. t. 7. p. 198.
[c] Vitruv. l. 2. c. 1. [d] Herod. l. 8. n. 52.; Val. Max. l. 5. c. 3. p. 467.
[e] Acad. des inſcript. t. 7. mem. p. 195. [f] Ibid. p. 190. [g] Ibid.
[h] T. 7. mem. p. 190. 196. [i] Suid. t. 1. p. 411.
[k] Iliad. l. 18. v. 497. &c. [l] L. 1. c. 28. p. 68. [m] Αργυρᾶς λίθους.
[n] Spon pretends, that the remains of this ancient tribunal are ſtill to be ſeen at Athens. Voyage de Grece, t. 2. p. 451.

In

In order that nothing might take off the attention of the Areopagi, they never ſat in judgment, but during the night. For this reaſon, ſays Athenæus, that none might know either the number or the faces of the Areopagi [o]. Thoſe of the ancients who have inquired into the reaſons of this practice, have delivered many motives which I think more ingenious than ſolid [p]. It ſeems to me, that this was a neceſſary conſequence of the cuſtom, that all tribunals had of judging criminals accuſed of murder, *ſub dio, in the open air* [q]. It is plain, that, without that precaution, the croud and noiſe of the people, which it would not be poſſible to hinder during the day-time, might take from the magiſtrates, aſſembled in a place only incloſed by a cord, a great part of the attention which matters of ſuch importance as murder require.

I have ſaid, that the Areopagus was formed by Cecrops on the model of the tribunals of Egypt. We have ſeen that the parties were not allowed to defend themſelves by orators in Egypt [r]. The maxims of the Areopagus, at its inſtitution, were, in this particular, very conformable to thoſe of the Egyptians. In the earlieſt times, the parties were obliged to plead their cauſes themſelves [s]; the eloquence of orators was looked upon as a dangerous talent, and was only proper to give to crimes the appearance of innocence. Yet the ſeverity and exactneſs of the Areopagus, in this particular, was ſoftened in time; they permitted the accuſed to make uſe of the aſſiſtance and help of orators [t]; but they were not ſuffered, in pleading, ever to loſe ſight of the main queſtion [u]. In conſequence of this reſtriction, they could neither make uſe of exordium, nor peroration, nor any thing, in a word, that could excite the paſſions, and ſeize on the admiration or pity of the judges [x]. The orators were obliged to confine themſelves ſolely to what belonged to their cauſe; otherwiſe

[o] L. 6. p. 255. [p] Ibid. See alſo Lucian in Hermot. n. 64. t. 1. p. 805.
[q] See Antiph. orat. *de caede* Herodis.
[r] Part the firſt, book 1. art. 4.
[s] Sext. Empiric. adv. rhet. l. 2. p. 304.
[t] Lucian. in Anacharſi, n. 19. t. 2. p. 889.
[u] Ariſt. rhet. l. 1. c. 1. *init.*; Lucian *ubi ſupra.*
[x] Pollux, l. 8. c. 10. ſegm. 117.; Quintil. inſtit. l. 6. c. 1.

ſilence

ſilence was impoſed upon them by a herald [y]. This manner of pleading, before the Areopagus, one may ſay, gave the tone to the bar of Athens, and extended itſelf to the diſcourſes that were pronounced at the other tribunals. It is for this reaſon, that the beginning and the end of the orations of Demoſthenes appear to us ſo ſimple and ſo deſtitute of ornaments [z].

As to the emoluments of the judges, there is room to doubt whether they had any originally. Thoſe they had afterwards were very ſmall. They had at firſt only two oboli a cauſe, and afterwards three [b]; that is, four ſols at moſt, an obolus being about fifteen deniers of French money [c]. The length of the proceedings made no alteration; and when the deciſion of an affair was put off to the next day, the Areopagi had only one obolus for that day. Such was the Areopagus, whoſe integrity and wiſdom is too univerſally known to be inſiſted upon. Hiſtory never ſpeaks of this auguſt aſſembly but to boaſt of its abilities, and make encomiums on it. Demoſthenes does not fear to ſay, that it was unheard of that any one had complained of an unjuſt ſentence given by that tribunal [d].

The ſecond event which has made the reign of Cranaüs memorable, was the deluge of Deucalion [e]. Nothing is more celebrated in the Grecian hiſtory than that event. Deucalion is looked upon as the reſtorer of the human race; and really was the ſtock of a numerous poſterity who reigned in many parts of Greece. But the deluge which happened in his time was only a great inundation cauſed by ſome rivers in Theſſaly, whoſe courſe was interrupted by the high mountains with which that country is environed: this joined to the vaſt quantity of rain which

[y] Ariſt. Quint. Lucian. *loco cit.*

[z] Epilogos illi mos civitatis abſtulit. *Quintil. inſt. l.* 10. *c.* 1.

[b] Ariſtophan. in Plut. v. 329. in Equit. v. 51. See the note of Caſaubon, p. 37. and thoſe of Spanheim upon Plutus, p. 251. et les mem. de l'acad. des inſcript. t. 7. mem. p. 192. & 195.

[c] Ibid. p. 195.

[d] In Ariſtocrat. p. 735. F.

[e] Marm. ep. 4.

fell

fell that year, overflowed the whole country [f]. It even appears that the inundation extended to the borders of Mount Parnaſſus, where Deucalion had eſtabliſhed the ſeat of his dominions [g].

Yet moſt of the ancient writers ſpeak of the deluge of Deucalion as an univerſal inundation, which drowned the whole human race, except this prince and Pyrrha his wife [h]. It is from this tradition that in the Grecian antiquity Deucalion paſſes for the firſt who built cities and raiſed temples to the gods. They likewiſe ſay that he was the firſt King [i]. Some have even pretended, that after this deluge the earth remained a long time deſert and uncultivated [k]; that the inundation had deſtroyed the trees, corrupted the ſeeds, and obliterated univerſally all the monuments of arts and ſciences [l]. This is the reaſon without doubt that ſome modern writers have advanced, that, after the deluge of Deucalion, Greece was totally deſert and abandoned, and was not cultivated for more than three ages after this flood [m].

All theſe facts, ſo far from being proved, are entirely contradicted by hiſtory. Greece, from the moment it began to be peopled, never wanted inhabitants. The ſucceſſion of the Kings of Argos, of Athens, of Sicyon, was never interrupted. We ought then to look upon the deluge of Deucalion as a local inundation, which might deſtroy a great many people in the country where it happened, but does not appear to have had any other conſequences. Thus the marbles of Paros explain it. They ſay plainly, that Deucalion having been ſaved from the flood, retired to Athens, where he ſacrificed to Jupiter Phyxius [n].

Cranaüs only poſſeſſed the throne nine years. He was drove away by Amphyction to whom he had given his daughter in marriage [o]. Some make this Amphyction ſon

[f] Marm. ep. 2.; Bannier explic. des fables, t. 6. p. 75. [g] Marm. ep. 2.
[h] Apollod. l. 1. p. 19. 20.; Ovid. met. l. 1. v. 318. &c.
[i] Apollon. Rhod. l. 3. v. 1085. [k] Plato de leg. l. 3. p. 804.
[l] Diod. l. 3. p. 232. l. 5. p. 376.-397.-398.
[m] Acta Erudit. Lipſ. an. 1691. p. 103.; Buffon, hiſt. nat. t. 1. p. 201.
[n] Marm. oxon. ep. 4. [o] Pauſ. l. 1. p. 7. 8.

of Deucalion, others ſay he was only his grandſon [p]. Neither of theſe opinions is to be received. The marbles diſtinguiſh very plainly Amphyction ſon of Deucalion, from Amphyction King of Athens [q]. They make them cotemporaries [r]. We are ignorant of the extraction of the King of Athens. We are not better inſtructed in the manner of his government: but there happened in his reign two events of very great conſequence in the Grecian hiſtory, the eſtabliſhment of the Amphyctions, and the arrival of Cadmus. I ſhall at preſent only ſpeak of the firſt.

At the time that Amphyction enjoyed the fruits of his uſurpation at Athens, Amphyction, ſon of Deucalion, reigned at Thermopylæ [s]. This prince, full of wiſdom and the love of his country, ſeriouſly reflected on the ſtate of Greece in his time. It was then divided into many independent ſovereignties. This diviſion might cauſe diſputes, and occaſion inteſtine wars, which might ſubject the nation to the enterpriſes of barbarous people, by whom they were ſurrounded, and who could eaſily overwhelm them [t].

To prevent ſo great an evil, Amphyction thought of uniting by a common tie all the different ſtates of Greece; to the end, ſays an ancient writer, that being always ſtrictly united by the ſacred bonds of friendſhip, they might labour together to maintain themſelves againſt the common enemy, and make themſelves formidable to the neighbouring nations [u]. In this view he formed a league among twelve Greek cities, whoſe deputies were to meet twice a-year at Thermopylæ [x]. This famous aſſembly was called *the council of the Amphyctions*, from the name of the inſtitutor [y].

Each city ſent two deputies, and had of conſequence two votes in their deliberations, and that without diſtinc-

[p] Acad. des inſcript. t. 3. mem. p. 195. [q] Marm. ep. 5.
[r] Ibid. See alſo Apollod. l. 1. p. 20. [s] Marm. ep. 5.
[t] Dion. Halicarn. l. 4. p. 229. [u] Ibid.
[x] Herod. l. 7. n. 200.; Æſchin. de falſa legat. p. 401.; Strabo, l. 9. p. 643.; Pauſ. l. 10. c. 8. *init.*
[y] Marm. ep. 5.; Pauſ. *loco cit.* The Greek hiſtorians are not agreed as to the number of people of which the aſſembly of the Amphyctions was compoſed. See les mem. de l'acad. des inſcript. t. 3. mem. p. 191.

tion,

tion, and without the moſt powerful having any prerogative or pre-eminence [a]: the liberty which theſe people valued themſelves upon, required that all ſhould be upon an equal footing.

The oath which the deputies took before their inſtalment, is too remarkable to be paſſed over. Æſchines has preſerved the form [a]. It was comprehended nearly in theſe terms. "I ſwear never to overturn any of the cities "honoured with the rights of the Amphyctionate, and not "to change the courſe of its rivers, neither in time of "peace, nor war. And if any people come upon ſuch "an enterpriſe, I engage myſelf to carry war into their "country, and to eraſe their cities, their towns, and vil-"lages. And further, if I find any one ſo impious as to "dare to ſteal any of the offerings conſecrated in the tem-"ple of Apollo, or to be any wiſe aiding in the commiſſion "of that crime, either by giving him an helping hand, or "aſſiſting with his counſels, I will employ my feet, my "hands, my voice, in a word, all my ſtrength, to revenge "the ſacrilege." This oath was accompanied with terrible imprecations and execrations.

We ſhould look on the aſſembly of the Amphyctions as the ſeſſion of the ſtates-general of Greece. The deputies who compoſed that auguſt company, repreſented the body of the nation, with full power to concert and reſolve whatever appeared to them to be moſt advantageous to the common cauſe. Their authority was not limited to judge of public affairs in the laſt reſort; it extended even to the raiſing of troops, to force rebels to ſubmit to the execution of their ſentences. The three religious wars undertaken at different times by order of the Amphyctions, are a ſtriking proof of the extent of their authority [b].

It was eſteemed a great honour among the Greeks to have a right to ſend deputies to this kind of ſtates-general. The leaſt mark of infidelity to their country was ſufficient to hinder their admiſſion. The Lacedemonians and the Pho-

[a] Æchin. de falſa legat. p. 401. [a] De falſa legat. p. 401. B.
[b] Acad. des inſcript. t. 3. mem. p. 192. 193.

cians were excluded for a time [c]. They could not get readmitted till they had made amends by plain proofs of ſervice and attachment for the fault which they had committed.

Great politicians have always found that the beſt way to give duration to the eſtabliſhments they formed, was to unite them with religion. With this view, Amphyction charged the council, which bore his name, with the care of protecting the temple of Delphos, and of having a watchful eye over the riches treaſured there [d]. But his principal object was, as we have ſhewn juſt now, to eſtabliſh between the different ſtates of Greece, the harmony that was neceſſary for the preſervation of the body of the nation, and to form a centre of union which might aſſure for ever a reciprocal correſpondence among theſe different people.

The effect anſwered the care and expectation of the prince. From that moment the intereſts of their country became common among all the people of Greece. The different ſtates of which that part of Europe was compoſed, only formed one and the ſame republic; a union which afterwards made the Greeks formidable to the Barbarians [e]. It was the Amphyctions who ſaved Greece in the time of the invaſion of Xerxes. It is by means of this aſſociation that theſe people have done ſuch great actions, and have ſupported themſelves ſo long a time with the higheſt diſtinction. Europe has models of the ſame aſſociations. Germany, Holland, and the Swiſs cantons, form republics compoſed of many ſtates.

Amphyction therefore ought to be looked upon as one of the greateſt men Greece ever produced, and the eſtabliſhment of the council of Amphyctions, as the greateſt maſterpiece in politics. We muſt place in the ſame rank the inſtitution of the Olympic games, whoever was the author. We cannot in general give too high encomiums to the Grecian legiſlators, for the variety of methods they

[c] Pauſ. l. 10. c. 8. *init.* [d] Acad. des inſcript. t. 3. mem. p. 191.
[e] Æchin. de falſa legat. p. 401.

invented

invented to unite and league that infinite number of ſmall ſtates which compoſed the Greek nation.

I ſhall paſs over the reigns of Erichthonius and Pandion, to come to that of Erechtheus, under whom the marbles place one of the moſt memorable events in Grecian antiquity. That is, the arrival of Ceres in Greece [f]: an æra ſo much the more famous becauſe it was to that time that all the ancients refer the eſtabliſhment, or rather, the re-eſtabliſhment of agriculture and civil laws in Greece. I ſhall treat in the ſequel of theſe articles in a particular manner [g].

The reign of Erechtheus is likewiſe remarkable for ſome acts relative to the ancient form of government eſtabliſhed in Greece. Till the time of this prince, the kings had always united in their own perſon the ſceptre and the prieſthood. Erechtheus, on ſucceeding Pandion, gave up ſome of his rights in favour of his brother called *Butes*. He kept the ſovereignty, and gave to Butes the prieſthood of Minerva and of Neptune [h]. This is the firſt example we find in the Grecian hiſtory of the diviſion of the ſecular and eccleſiaſtic power.

Erechtheus reigned fifty years; he was killed in a war he had undertaken againſt the Eleuſinians [i]. The event however was to the advantage of the Athenians, to whom thoſe of Eleuſis were obliged to ſubmit [k]. The Athenians had given the command of their army to Ion ſon of Xuthus, and great-grandſon of Deucalion [l]. They were ſo pleaſed with the ſervices Ion had done them in that war, that they intruſted him with the care and adminiſtration of the ſtate [m]. There are even authors who ſay, that, on the death of Erechtheus, his mother's father, Ion aſcended the throne [n]. Yet we do not find the name of this prince in any of the catalogues of Athenian kings [o].

[f] Marm. Oxon. ep. 12. [g] See. art. 8. book 2. ſect. 2. chap. 1.
[h] Apollod. l. 3. p. 198. [i] Pauſ. l. 1. c. 38. [k] Ibid.
[l] Herod. l. 8. n. 44.; Pauſ. l. 2. c. 14.
[m] Vitruv. l. 4. c. 1.; Strabo, l. 8. p. 588.
[n] Euripid. *in* Ione, v. 577. and Conon *apud* Phot. narrat. 27. p. 438.
[o] See Pauſ. p. 7. *init.*

But

But it is certain that Ion had a very great authority. He was the firſt who introduced into Greece the cuſtom of ſeparating into different claſſes, the different profeſſions to which the citizens apply themſelves in a ſtate. He diſtributed all the people of Athens into four claſſes [p]. One included the labourers, another the artificers, the third was compoſed of the miniſters of religion, and the military [q] compoſed the fourth.

Before we finiſh what concerns the reign of Erechtheus, I think it ought to be remarked, that, under this prince, Attica was already ſo fully peopled, that not being able to ſubſiſt all its inhabitants, the Athenians were obliged to ſend different colonies to Peloponneſus [r], and the iſle of Eubœa [s].

From Erechtheus to Theſeus, the hiſtory of Athens offers us nothing remarkable nor intereſting. The age of Theſeus is that of the ancient heroes of Greece. This prince without doubt was one of the moſt famous and moſt diſtinguiſhed of them; but it is not his exploits, but his adminiſtration, and the changes he made in the government of Athens, which ought to employ us at preſent.

We have before ſeen that Cecrops the Second founded twelve principal towns in Attica. The inhabitants of theſe towns lived entirely ſeparate from each other [t]. Each diviſion had its own juriſdiction, and its particular polity, and that independent even of the ſovereign [u]. This arrangement made each town form, as it were, a particular body ſeparate from the ſtate; it was not eaſy to aſſemble the inhabitants, and to unite them when they were to deliberate on their ſafety, and the intereſt of the common cauſe. Beſides, they were pretty frequently at war

[p] Strabo, l. 8. p. 588.

[q] This is the ſenſe in which I think we ought to take the word φύλακες, which is here uſed by Strabo. This meaning is authoriſed by Plato, who, in his republic, always uſes this word, to deſign military people. See Ariſt. polit. l. 2.

[r] Strabo, l. 8. p. 585.

[s] Paſ. l. 1. c. 5. p. 13. It is called at preſent *Negrofont*. It is the largeſt of the iſles of the Archipelago.

[t] Thucyd. l. 2. p. 110. [u] Ibid.

with

with each other [x], often even againſt their ſovereign [y]. The firſt uſe that Theſeus made of his authority, was to remedy this abuſe. Knowing how to join prudence with reſolution, he broke all the magiſtrates and all the particular aſſemblies of each diſtrict [z]. He even cauſed all the halls where they held their councils, and the edifices where they adminiſtered juſtice, to be demoliſhed [a]. After this reform all the inhabitants of Attica were ſubjected to the juriſdiction of the magiſtracy of Athens. All political power and authority was centered in that capital [b]. Thus when they were to take any general reſolution, the inhabitants of the country were obliged to leave their villages and repair to Athens [c]. The aſſemblies of the nation were only held in the city, which by that means became the centre of government, of which every one partook by an equal right who bore the name of Athenian. For the inhabitants of the country had the ſame right to vote as thoſe of the city; and in that ſenſe one may truly ſay that all the Athenians were really citizens of one and the ſame city [d].

To enlarge and people the capital, Theſeus invited all the country-people to repair thither [e], offering them the ſame rights and the ſame privileges that were enjoyed by the citizens [f]; but at the ſame time, leſt this croud of people gathered from all parts, ſhould bring confuſion and diſorder into his new eſtabliſhment, he thought proper to divide the inhabitants of Athens into three claſſes. We have already ſeen that anciently, under the reign of Erechtheus, they had divided the Athenians into four claſſes:

[x] Plut. in Theſ. p. 10. F. [y] Thucyd. l. 2. p. 110. [z] Ibid.
[a] Plut. in Theſ. p. 11. A.
[b] Thucyd. *loco cit.*; Iſocrat. Encom. Helen. p. 312.; Plut. *loco cit.*
[c] Thucyd. l. 2. p. 110. [d] Iſocrat. Encom. Helen. p. 312.
[e] Iſocrat. Plut. *loco cit.*
[f] Plut. p. 11. It is for want of ſufficient reflection that moſt of the modern writers have advanced that Theſeus had tranſported all the people of Attica into Athens. It is true they might be deceived by Cicero, *de leg.* l. 2. n. 2. Diodorus, l. 4. p. 306. Strabo, l. 9. p. 609, who ſay it expreſsly. But that notion is not juſt. It is certain there remained inhabitants in the country to cultivate the grounds. Thucydides plainly ſays ſo, l. 2. p. 108. Theſeus only made Athens the metropolis of Attica.

Theſeus

Theſeus thought there only ſhould be three: the nobles, the labourers, and the artificers [g]. The principal end of Theſeus was to eſtabliſh a perfect equality in the ſtate [h]. With this view, he gave to the nobles the privilege of offering ſacrifices, of adminiſtering juſtice, and of taking cogniſance of what concerned religion and civil government [i]. By this means Theſeus made the nobles as powerful as both the other eſtates. Theſe laſt prevailed by their numbers, by their neceſſary importance, and by their utility in the ſtate: but the honours and the dignities which the nobles were in poſſeſſion of, gave a weight to them, which was not in the labourers nor artificers.

This diſtribution of the citizens of a ſtate into different claſſes, relative to their different profeſſions, was the reigning taſte of the ancient people. We have ſeen that it had place in Egypt. The colonies that paſſed from that country into Greece, brought with them this policy [k]. It is not therefore ſurpriſing that it took place there. I will not here inſiſt on the inconveniencies that might ariſe from ſo dangerous a maxim: I will ſpeak of them elſewhere [l].

Such was the new form of government which Theſeus eſtabliſhed in his kingdom. He made Athens the capital, or, one may ſay, the metropolis of his dominions. From thence this prince laid the foundations of the grandeur which this city afterwards attained. He may juſtly be looked upon as the ſecond founder [m].

Theſeus was alſo the firſt prince who favoured popular government [n]. He uſed the kingly power with much moderation, governing his people with great juſtice and equity [o]. But, notwithſtanding all theſe great qualities, he could not avoid the ſtrokes of envy, always fond of perſe-

[g] Diod. l. 1. p. 33.; Plut. p. 11. C.
[h] Pauſ. l. 1. c. 3. p. 9.; Demoſth. in Neaeram, p. 873. C.
[i] Plut. *loco cit.* [k] Diod. l. 1. p. 33.
[l] Part 3. book. 1. ch. 4. [m] Diod. l. 4. p. 306.
[n] Demoſth. in Neaeram, p. 873.; Plut. in Theſ. p. 11. This author obſerves, after Ariſtotle, that the Athenians were the only ones to whom Homer gives the name of *people*. Iliad. l. 2. B. v. 54.
[o] Iſocrat. Encom Helen. p. 309. & 311.; Diod. l. 4. p. 306.

cuting

cuting the merit of great men. He was baniſhed from the very city he had raiſed [p]. What is ſtill more remarkable, is, that it was by way of oſtraciſm, which he himſelf had eſtabliſhed [q].

I ſhall ſay nothing of the kings who poſſeſſed the throne of Athens after Theſeus. We will paſs on to Codrus, in whom ended the kingly government. An anſwer of the oracle determined this prince to ſacrifice himſelf for the ſafety of his kingdom [r]. This was the occaſion of it.

The return of the Heraclidæ into Peloponneſus, of which I ſhall ſpeak immediately, had thrown that province into the greateſt trouble and confuſion. The inhabitants driven from their ancient habitations, had been obliged to look for a retreat in different places. The Ionians, among others, had applied to the Athenians. Melanthus, who then reigned at Athens, had given them a retreat [s]. This new colony made Attica much more flouriſhing than ever. The Heraclidæ ſaw with a jealous eye this increaſe of power. They declared war againſt the Athenians [t]. Melanthus was then dead, and Codrus had ſucceeded him. It was formerly the cuſtom never to undertake any expedition without firſt applying to the oracle. They therefore conſulted it, and the anſwer was, that the Heraclidæ ſhould be conquerors if they did not kill the King of the Athenians. In conſequence of this they publiſhed an expreſs order not to touch the King of Athens. Codrus heard of this. The love which his people had for him made them keep a watchful guard upon him. To eſcape from the vigilance of his guards, he diſguiſes himſelf like a peaſant, enters into the enemy's camp, picks a quarrel with a ſoldier, and wounds him. The ſoldier falls upon him and kills him. The news

[p] Diod. l. 4. p. 306.; Plut. in Theſ. p. 15. 16.

[q] Theophraſt. in polit. *apud* Suid. *voce* Ἀρχὴ Σκυρίᾳ, t. 3. p. 344.; Euſeb. chron. l. 2. p. 92.; Syncell. p. 172.: Scholiaſt. Ariſtophan. in Pluto.

It is true this opinion has its difficulties. See Scaliger. Animad. in Euſeb. p. 50.; Potter, Archæol. l. 4. c. 25. p. 115. et les mem. de l'acad. des inſcript. t. 12. mem. p. 145.

[r] *Codrus pro patria non timidus mori.* Horat. carm. l. 3. od. 19.

[s] Strabo, l. 9 p. 602.; Pauſ. l. 7. cap. 1.

[t] Juſtin. l. 2. c. 6.; Strab. l. 9. p. 602.

was ſoon ſpread. Codrus is known. The Heraclidæ imagining, from the anſwer of the oracle, that the Athenians would be victorious, retired without giving battle [u].

After the death of Codrus, the Athenians would have given him a ſucceſſor. But not finding any to compare with him, they aboliſhed royalty. By this means the government of Athens was changed from monarchical, to republican [x]. We will ſpeak afterwards of the conſequences of this revolution [y].

ARTICLE II.

ARGOS.

I Have before obſerved, that Argos was one of the moſt ancient kingdoms of Greece. I have likewiſe ſaid that the reigns of the firſt ſucceſſors of Inachus deſerved no attention [z]. We therefore paſs them over in ſilence to come to Gelanor. He was the laſt of the race of the Inachidæ who enjoyed the crown.

Gelanor had not reigned many months, before Danaus, at the head of an Egyptian colony [a], came to diſpute the crown with him [b]. The people were choſen to determine their diſpute. Till that moment Danaus had had no commerce with the Argives. Every thing ſeemed united in favour of Gelanor. Danaus was ſcarce known to the people over whom he would reign. Gelanor, on the contrary, was the iſſue of the family which for a long time had been in poſſeſſion of the government. The motive which made them prefer Danaus is very ſingular. At the time that they both met to attend the deciſion of the people, a wolf fell upon an herd of cows which was paſſing under the walls of

[u] Juſtin. *loco cit.*; Val. Max. l. 5. c. 6. p. 489.; Pauſ. l. 7. c. 25.
[x] Juſtin. l. 2. c. 7.; Vell. Paterc. l. 1. c. 2.; Pauſan. l. 4. c. 5. *ſub fin.*
[y] Part 3. book 1. chap. 5. [z] See part 1. book 1.
[a] Marm. Oxon. ep. 9.; Herod. l. 2. n. 91.; Apollod. l. 2. p. 63.; Diod. l. 5. p. 376.
[b] Pauſ. l. 2. c. 16.

the

the city. He attacked the bull who marched at their head and overthrew him. The Argives took this accident for a deciſive augury. They thought that Gelanor was repreſented by the bull, a tame animal, and Danaus by the wolf, a ſavage one. And on this principle they determined in favour of Danaus [c].

As ſoon as he ſaw himſelf inveſted with ſovereign authority, he thought of the means of preſerving it. With this view he built a citadel in the city of Argos [d]. Danaus educated in Egypt, where the arts were very flouriſhing, would impart them to his new ſubjects. He ſhewed them the way to meliorate their ſoil, and make it more fertile [e]. This prince excelled all the kings who had preceded him; and that in ſo diſtinguiſhed a manner, that, in conſideration of it, the people changed the name which they had always borne, and did him the honour to adopt his [f].

To Danaus, ſucceeded Lynceus his ſon-in-law [g]; but there is nothing to be related of his reign, nor of thoſe of his ſucceſſors, till we come to Acriſius. It is in the reign of this prince that they place the arrival of Pelops in Greece [h].

He was ſon of the famous Tantalus, King of Phrygia. A war with Ilus, ſon of Tros, the ſame who gave to Troy the name of Ilium, obliged Pelops to quit Aſia, and to go into Greece with his ſiſter [i]. Their arrival in a very little time occaſioned great changes in the affairs of that part of Europe. Thucydides remarks, that Pelops eaſily obtained great credit in Greece, becauſe he brought there from Aſia riches unknown before that time to the natives of the country [k]. To which Plutarch adds, that the number of his children contributed to it as much as the greatneſs of his treaſures. For his daughters were married to the moſt powerful princes of Greece, and he found means to procure ſovereignties for each of his children [l]. Pelops was more

[c] Pauſ. l. 2. c. 19. [d] Strabo, l. 8. p. 570.
[e] We ſhall ſpeak of this in the article of arts.
[f] Euripid. *apud* Strab. l. 8. p. 570. [g] Apollod. l. 2. p. 67.; Pauſ. l. 2. c. 6.
[h] Marſh. p. 286. [i] Ibid. [k] Ibid. [l] Ibid.

over a ſteady and prudent prince, and knew how to conquer moſt of the people of Peloponneſus. He was even ſo far honoured and reſpected, that they gave his name to all that peninſula. I ſhall have occaſion in the ſequel to ſpeak of the poſterity of Pelops. Let us return to Acriſius.

No one is ignorant that the end of this prince was moſt unlucky. He loſt his life by the hand of Perſeus his grandſon. By his death, Perſeus found himſelf King of Argos. But the manner by which he aſcended the throne, gave him a diſtaſte to his kingdom. He condemned himſelf to quit his country, and engaged Megapentes king of Tyrinthus, his couſin, to change his kingdom with him [n].

The kingdom of Argos loſt by the death of Acriſius almoſt all its glory. From Megapentes, who left his crown to Anaxagoras his ſon, there is nothing certain in the ſucceſſion of the kings of Argos. All that we know, is, that Cylarabis was the laſt of them. In the reign of this prince, Oreſtes, ſon of Agamemnon, ſeized on the kingdom of Argos [o], and united it to that of Mycenæ.

ARTICLE III.

MYCENÆ.

THough the kingdom of Mycenæ be the leaſt ancient and the leaſt conſiderable in Greece; yet to leave nothing to be wiſhed for relative to the ancient ſtate of that part of Europe, I ſhall examine its hiſtory, but that very briefly. What we have read of the exchange made between Perſeus and Megapentes, made me place here what I have to ſay on this ſubject.

The kingdom of Mycenæ owes its foundation to Perſeus [p]. Tyrinthes was the capital of that new kingdom which that prince had juſt acquired; but, for reaſons at preſent unknown, he reſolved to change his reſidence. As he

[n] Apollod. l. 2. p. 77.; Pauſ. l. 2. c. 16. [o] Pauſ. ibid. c. 18.
[p] Strabo, l. 8. p. 579.

looked

looked for a proper place to build a new city, the hilt of his ſword fell off. This accident appeared to him an happy preſage. He thought he there ſaw the will of the gods in a ſenſible manner, and becauſe μύκης in Greek ſignified the hilt of a ſword, he built a city there, and called it Mycenæ [p]. Such were the motives by which they were commonly determined in theſe remote ages.

Perſeus, a prince equally famous by his exploits and by his travels, is one of the moſt celebrated heroes of antiquity [q]. But I believe I ſhall be diſpenſed with from entering into any detail of his actions. What hiſtory has tranſmitted to to us is ſo disfigured by fabulous and contradictory relations, that one cannot tell what to make of them. I ſhall therefore content myſelf with juſt taking notice of his voyages in the article of navigation.

The ſucceſſors of Perſeus were Maſtor, Electrion, Sthenelus, and Euryſtheus. This laſt was grandſon of Pelops by his mother Nicippe [r], whom Sthenelus had married. No one is ignorant of the labours with which he loaded Hercules his couſin. The family of Perſeus ended in the perſon of Euryſtheus. Having made war in Attica, he periſhed there with all his children [s].

At his death the crown of Mycenæ paſſed into the family of Pelops. Upon going on his expedition againſt the Athenians, Euryſtheus had intruſted the government of his dominions to his uncle Atreus, ſon of Pelops [t]. Atreus was no ſooner appriſed of the death of his nephew, and the defeat of his army, than availing himſelf of the conſternation which that event had thrown his countries into, he ſeized on the throne of Mycenæ. This prince is but too well known by the horrible conſequences of his implacable hatred of Thyeſtes his elder brother. We know the cauſe of it. To revenge himſelf of the diſhonour he believed he had received,

[p] Pauſ. l. 2. c. 16.

[q] Herod. l. 2. n. 91. l. 7. n. 61. et 150.; Apollod. l. 2.; Hygin. fab. 64.; Ovid. Met. l. 4.

[r] Apollod. l. 2. p. 78. 79.

[s] Thucyd. l. 1. p. 8.; Apollod. l. 2. p. 122.; Diod. l. 4 p. 301. 302.

[t] Thucyd. l. 1. p. 89.; Diod. l. 4. p. 302.

Atreus

Atreus made Thyeſtes eat his own children [a]. This unhappy father had been intimate with his own daughter Pelopia [x]. From this inceſt he had a ſon whom he called Egyſthus. Egyſthus revenged his father by ſlaying Atreus. This death placed Thyeſtes on the throne of Mycenæ [y]. Agamemnon his nephew drove him out [z]: but by the intrigues of his wife Clytemneſtra, he himſelf ſome time afterward fell beneath the ſtrokes of Egyſthus, who ſeized on the crown [a]. This uſurper in his turn periſhed by the hand of Oreſtes, who did not even ſpare his own mother [b].

The crime of Oreſtes did not go unpuniſhed. Without ſpeaking of the remorſe of conſcience, meant by the revenging furies with which the ancient tragedies have repreſented him tormented, he was accuſed before the people by Perilas, who, as couſin-german of Clytemneſtra, demanded vengeance for her death [c]. Oreſtes was obliged to go to Athens to ſubmit himſelf to the judgment of the Areopagus [d]. 'Tis one of the moſt famous that this tribunal is ſaid to have given. Though fable has ſtrangely diſfigured the circumſtances, it is certain that this judgment was the epocha of a change of the utmoſt conſequence in the criminal proceedings of the Athenians. For this reaſon I will lay the facts before the reader. I leave to his own diſcernment the care of diſentangling the truth, from what has been added to it by the taſte of an age too fond of the marvelous.

The Areopagus diſcuſſed the affair of Oreſtes with great attention. They were divided in opinion at the beginning; but in the end the number of the judges who were for condemning Oreſtes, carried it by one vote over thoſe who would have him acquitted. This unfortunate prince was going to be condemned; when Minerva joined herſelf, ſay they, to the judges who were for pardoning, and by

[a] Pauſ. l. 2. c. 18.; Hygin. fab. 87. 88. [x] Idem, ibid.
[y] Ibid.; Iliad. l. 2. v. 100. [z] Euripid. Iphig. act. 5.
[a] Odyſſ. l. 4. v. 91. 92. l. 11. v. 408. &c.; Virgil. Æneid. l. 11. v. 226. & 268.; Hygin. fab. 117.; Vell. Pater. l. 1. p. 2.
[b] Marm. Arund. ep. 24.; Hygin. fab. 119. [c] Pauſ. l. 8. c. 34.
[d] Id. l. 1. c. 28.; Marm. Arund. ep. 24.

that

that means made the votes equal. In conſequence, Oreſtes was acquitted of the accuſation [e]. From that time, whenever there was an equality of voices, they decided in favour of the accuſed [f], by giving him what they call *the ſuffrage of Minerva* [g].

The reign of Oreſtes was glorious and flouriſhing. By his marriage with Hermione, daughter of Menelaus, he inherited the kingdom of Sparta [h]. I have already obſerved, that he united the crown of Mycenæ to the kingdom of Argos [i].

Tiſamenes his ſon ſucceeded him [k], and only wore the crown three years. It was in his reign that the kingdom of Mycenæ ended by the invaſion of the Heraclidæ, who threw themſelves into Peloponneſus, made themſelves maſters of it, and changed the form of government [l].

ARTICLE IV.

THEBES.

BEOTIA was the firſt country of Greece ſaid to be inhabited; theſe people formerly called themſelves Ectenes, and reckoned Ogyges for their firſt ſovereign [m]. A violent plague having deſtroyed almoſt all the firſt colony, the Hyanthes and the Aonians entered Beotia, and ſettled there [n]. We are entirely ignorant of the events that happened till the time that Cadmus ſeized on it.

[e] Æſchil. in Eumen. v. 743. & 749.

[f] Ariſt. problem. ſect. 29. prob. 13.; Heſychius τοκε ἴσαι ψῆφοι. See alſo Mezriac, in ep Ovid. t. 2. p. 271.; Blanchiani. iſt. univ. p. 318. and the note on Marm. Oxon. p. 353.

According to Varro, this cuſtom ſhould be yet more ancient than Oreſtes; he ſays it took place in the judgment which the Areopagus gave between Mars and Neptune, on account of the murder of Halirothius. Apud. Auguſt. de civit. Dei, l. 8. c. 10.

[g] In France the accuſed are treated yet more favourably. There muſt always be two voices majority for the moſt rigorous ſentence. So among eleven, for example, if there are ſix for an heavy puniſhment, and five for a lighter, the five carry it againſt the ſix, and the court paſſes the milder ſentence.

[h] Hygin. fab. 121.; Pauſ. l. 3. c. 1. [i] Art. 2.

[k] Pauſ. l. 2. c. 18. [l] See art. 6. [m] Pauſ. l. 9. c. 5.

[n] Ibid. See alſo Strab. l. 9. p. 615.

The

The arrival of this prince is one of the moſt celebrated epochas of the Grecian hiſtory. It happened in the reign of Amphyction ſecond king of Athens [o], 1519 years before Chriſt. It is of very little conſequence to know whether Cadmus was originally an Egyptian or Phenician; that is a point I ſhall not examine. It is ſufficient to know that he came from Phenicia into Greece. All authors agree in this. The motive of his voyage, according to ſome, was an order he received from the King his father, to go in ſearch of his ſiſter Europa whom the Greeks had ſtolen away [p]. After having been ſtopped by a tempeſt a long time, he came into Beotia. His firſt care was to go and conſult the oracle of Delphos, to know in what country he might find Europa. The god, without anſwering his queſtion, bid him fix his abode at a place that ſhould be ſhewn to him by an ox of a particular colour [q]. On going out of the temple, Cadmus met one, which, after having led him a great way, laid down through wearineſs. Cadmus fixed himſelf in the very ſpot, and called it *Beotia* [r].

It was not without meeting with great reſiſtance from the inhabitants, that Cadmus was able to form his new eſtabliſhment. The Hyantes in particular oppoſed them greatly [s]. But a deciſive battle obliged them to abandon their country, and to look for a retreat ſomewhere elſe. The Aonians, become wiſe by the example of their neighbours, voluntarily ſubmitted themſelves to the conqueror, who, on their becoming ſubjects, permitted them to ſtay in their own country. From that time they were one and the ſame people with the Phenicians [t]. This is the abridg-

[o] Marm. Oxon. ep. 7.

[p] Euſeb. Chron. l. 2. p. 79.

According to an ancient tradition related by Athenaeus, l. 14. p. 658. Cadmus was only one of the principal officers of the King of Sidon. Seduced by the charms of Hermione or Harmione, a muſician in the court of that prince, he carried her off, and conducted her into Boeotia. See upon this whole anecdote, le comment. du P. Calmet. *ad* Gen. c. 37. v. 36. Athenaeus took this from the third book of Euhemeres, a famous author, but much cried down by antiquity, and I believe very unjuſtly, as I will fully ſhew hereafter.

[q] Apollod. l. 3. p. 136.; Hygin. fab. 178.; Pauſ. l. 9, c. 12.

[r] Pauſ. l. 9. c. 12. [s] Pauſ. l. 9. c. 5. [t] Ibid.

ment

ment of the hiſtory of this colony, which fable has ſtrangely altered [u].

When Cadmus ſaw himſelf in peaceable poſſeſſion of the country, he built a fortreſs, according to the cuſtom of theſe firſt conquerors, which, from the name of its founder, was called Cadmeus [x]. As he wanted to increaſe the number of his ſubjects, he firſt granted the favour of aſylums, and gave an abſolute ſecurity to all thoſe who would fly for refuge to him [y]. Cadmus ſucceeded, and by this expedient made his city extremely populous. But he expoſed it at the ſame time to the jealouſy of his neighbours, in that he protected criminals from the puniſhment they deſerved.

There are few colonies from whom the Greeks have drawn ſuch great advantages as from this of Cadmus. Greece is indebted to him for alphabetic writing, the art of cultivating the vine, and the forging and working of metals. I ſhall take a proper notice of all theſe particulars in the ſequel of this work.

Cadmus, after having reigned ſome time in Beotia, ſaw a conſpiracy formed which deprived him of the throne. Forced to retire, he looked for an aſylum among the Encheleans [z]. Theſe people being at that time at war with the Illyrians, had received an anſwer from the oracle, which promiſed them victory if they marched under the conduct of Cadmus. They believed this; and having effectively put that prince at their head, they defeated the Illyrians. In acknowledgment of the ſervice which Cadmus had done them, they choſe him king. There he finiſhed his courſe. He died in that country [a].

The moment that Cadmus abandoned his riſing principality, Polydore his ſon aſcended the throne [b]. I ſhall

[u] See Apollod. l. 3. p. 136.; Ovid. met. l. 3. *init.*; Palæphat. c. 6.; Bannier, explicat. des fables, t. 6. p. 117.

[x] Strab. l. 9. p. 615.; Pauſ. l. 9. c. 5.

[y] Potter, Archæolog. Gr. l. 2. c. 2. p. 213.

Romulus availed himſelf of the ſame means to people Rome the more readily. Dion. Halic. l. 2. p. 88.; T. Livius, l. 1. n. 8.; Strabo, l. 5. p. 352.; Plut. *in* Romulo, p. 22. E.

[z] Apollod. l. 3. p. 143.; Strabo, l. 7. p. 503.; Pauſ. l. 9. c. 5.

[a] Apollod. & Pauſ. *loco cit.* [b] Ibid.

dwell no longer on the ſucceſſors of Cadmus. The family of that prince is but too well known by the ſhocking miſfortunes that overwhelmed it. The moſt tragical cataſtrophes ſeem to have been the portion of his ſucceſſors. They continued to Xanthus the laſt King of Thebes. The manner in which he periſhed, was the reaſon that the government changed its form, and became republican.

A difference had ariſen between the Athenians and Thebans about a city of which they diſputed the poſſeſſion. The troops being in ſight of each other, the two armies reflecting, that, in riſking a battle, there muſt be a great many killed on both ſides, they agreed then, to ſave the effuſion of blood, to oblige the two kings themſelves to decide the quarrel of the two ſtates. Timœtheus, King of Athens, refuſed the challenge, and reſigned his royalty. Melanthus, to whom they offered it, accepted it, and killed the King of Thebes [b].

This event, joined to the misfortunes which ſeemed inſeparable from the perſons of their ſovereigns, gave the Thebans a diſlike to royalty [c]: like the Athenians in this particular, who, on the death of Codrus, changed likewiſe the form of their government. But this change aggrandized the Athenians, whereas the Thebans, in loſing their kings, loſt all their reputation [d]. Athens become a republic, carried its glory to the higheſt pitch it was capable of arriving at. Thebes, on the contrary, could only languiſh for a long time. It was more than ſeven hundred years before it could ariſe from its obſcurity. At laſt it got out of it by the reputation which the victories of Epaminondas and Pelopidas gave to their arms. This republic played but a ſhort ſcene, it is true, but a moſt brilliant one. But this is too foreign to our ſubject to dwell upon it.

[b] Conon *apud* Phot. narrat. 39. p. 447.; Strabo, l. 9. p. 602.; Pauſ. l. 9. c. 6.; Polyaen. ſtrat. l. 1. c. 19.; Frontin. ſtrat. l. 2. n. 41.; Suidas, *voce* Ἀταξυρία, t. 2. p. 248.

[c] Pauſ. l. 9. c. 6. [d] Pauſ. ibid.; Herod. l. 9. n. 85.

ARTICLE

ARTICLE V.

LACEDÆMON.

IT is not with the origin of this city as with that of Athens. The beginning of Lacedæmon is abſolutely unknown. Its firſt years have been ſo obſcured, that even fable itſelf has not found ſufficient matter to embelliſh it. I ſhall not therefore ſtop to examine the different traditions which have been handed down to us about the origin of this people, of whom we are not at all inſtructed [c]. We muſt without doubt attribute the cauſe of this to the contempt which at all times the Lacedæmonians had for letters [f].

Lelex is looked upon as the firſt who is ſaid to have reigned over Laconia. Some ſay that he was an Egyptian [g]; others, that he was originally of that country [h]. They place the beginning of his reign 1516 years before the Chriſtian æra. Of moſt of the kings who have poſſeſſed the throne from this prince to Oreſtes, we ſcarce know any thing but their names; we can no where find either the time that each prince reigned, or even the number of years which make up the ſum of their reigns. Beſides the little we know of their actions, preſents nothing worthy of detaining the reader. Yet we muſt except Oebalus, the eighth king of Sparta from Lelex.

This prince eſpouſed for his ſecond marriage Gorgophona, daughter of Perſeus. That princeſs was then widow of Perieres, King of Meſſina [i]. This is the firſt example the Grecian hiſtory gives us of a widow's marrying [k]. By this marriage he had Tyndarus [l]. His father declared him heir to his dominions, and he enjoyed them ſome time. But Oebalus had had by Nicoſtrata, his firſt wife, a ſon called Hippocoon [m]. This prince, aſſiſted by the nobles of the

[c] See Bochart, le P. Pezron. le Clerc, bibliotheque univ. t. 6.
[f] Ælian. var. hiſt. l. 12. c. 50. [g] Pauſ. l. 1. c. 44.
[h] Id. l. 3. *init.* [i] Id. l. 4. c. 2. [k] Id. l. 2. c. 21. [l] Id. l. 3. c. 1.
[m] Meurſ. de reg. Lac. c. 3. 4.

country, claimed the throne in virtue of his right of ſeniority, declared war againſt Tyndarus [o], obliged him to give up the crown, and go to Sparta [o]. Tyndarus retired to Theſtius, and married his daughter Leda, ſo well known in fable by her amours with Jupiter [p]. Hippocoon having ſome time before drawn upon himſelf the wrath of Hercules, that hero maſſacred him and all his children, and replaced Tyndarus upon the throne of Sparta [q]. But he only ceded that crown to him on condition that he gave it up again to his deſcendents when they ſhould come and demand it of him [r].

Tyndarus had, by his marriage with Leda, two ſons twins, Caſtor and Pollux, and two daughters, Helena and Clytemneſtra [s]. Authors are not agreed in what manner Caſtor and Pollux periſhed. However it was, Tyndarus afflicted for the untimely loſs of his two ſons; thought to repair it by chuſing a ſon-in-law worthy of his daughter, and capable of governing his kingdom. His deſign was no ſooner known, than all the princes of Greece offered themſelves. They reckoned there were twenty-three rivals who aſpired to the hand of Helen [t]. This croud of competitors greatly embarraſſed Tyndarus. He feared leſt the choice that he ſhould make ſhould bring on him the enmity of thoſe who ſhould be refuſed. Ulyſſes, who was one of the number, then gave marks of that artifice which has always appeared in his conduct. He ſuggeſted to Tyndarus an expedient to get out of the difficulty without any diſagreeable conſe-

[o] Pauſ. l. 2. c. 18. p. 151. l. 3. c. 1.

[o] Apollod. l. 3. p. 173.; Diod. l. 4 p. 278.; Strabo, l. 10. p. 708.; Pauſ. l. 3. c. 21. p. 263.

[p] Apollod. l. 3. p. 173.; Hygin. fab. 77.; Strabo, l. 10. p. 709.

[q] Apollod. l. 2. p. 114. 115.; Diod. l. 4. p. 278.; Pauſ. l. 2. c. 18. p. 151. l. 3. c. 15. p. 244.

[r] Diod. l. 4. p. 278.; Pauſ. p. 151.

[s] Apollod. l. 3. p. 174.; Hygin. fab. 78.

[t] Apollod. l. 3. p. 175.

It muſt have been that in thoſe times the hopes of a crown ſurpaſſed all other conſiderations; otherwiſe the rape of Helen by Theſeus, had made too much noiſe in Greece not to have cooled the ardor of the pretenders, eſpecially as ſhe was ſuſpected to have to Theſeus, Iphigenia, whom her aunt Clytemneſtra took care to bring up as if ſhe had been her own daughter. Pauſ. l. 2. c. 22.; Auton. liberal. metam. c. 27.

quences.

quences. He adviſed him to make all the lovers of Helen ſwear ſolemnly, that they would agree to the choice of that princeſs, and that they would all join themſelves to him whom ſhe had choſen, to defend him againſt any one who would diſpute her with him [u]. They all accept the propoſition, each flattering himſelf that the choice of Helen will fall upon him. She determined in favour of Menelaus, brother of Agamemnon [x], who by that means became King of Sparta [y]. Scarce had ſhe been three years with this prince, when ſhe was carried off by Paris, ſon of Priam. Every one knows that this rape occaſioned the war of Troy [z].

Before this event, Helen had had to Menelaus a daughter called Hermione [a]. This princeſs, on marrying Oreſtes her couſin-german, brought as a dower to the prince the kingdom of Sparta [b]. It was under the reign of Tiſamenes his ſon, that the deſcendents of Hercules entered into Peloponneſus, and made themſelves maſters of it eighty years after the taking of Troy. This event, one of the moſt conſiderable in the Grecian hiſtory, totally changed the face of that part of Europe, and brought upon it a dreadful revolution. This was the occaſion of it.

ARTICLE VI.

The HERACLIDÆ.

PERSEUS had had, by his marriage with Andromeda, Alceus, Sthenelus, Hilas, Maſtor, and Electrion [c]. Alceus having married Hippomene, daughter of Meneceus, had

[u] Apollod. l. 3. p. 176.; Hygin. fab. 78.; Pauſ. l. 3. c. 20.
[x] Hygin. fab. 78. [y] Ibid.
[z] Herodotus makes a very judicious reflection on this ſubject. The Aſiatics, ſays he, look upon the taking away a man's wife as a moſt unjuſt action; but they think none but fools would try to revenge thoſe that have been carried off, perſuaded that this could not have happened but with their own conſent. l. 1. n. 4.
[a] Apollod. l. 3. p. 176. [b] Pauſ. l. 3. c. 1.: Hygin. fab. 122.
[c] Apollod. l. 2. p. 77. 78.; Diod. l. 4. p. 254.

two

two children by her, Amphytrion and his ſiſter Anaxo [d]. Electrion married his niece Anaxo, daughter of Alceus, and by that marriage had Alcmena [e], who afterwards became the wife of Amphytrion, and was mother of Hercules.

Electrion enjoyed the throne of Mycenæ after the death of Perſeus. Amphytrion ought naturally to have ſucceeded him. He was grandſon of Perſeus, and by his wife Alcmena, he was the ſole heir of Electrion [f]. But having had the misfortune involuntarily to kill his father-in-law, he was obliged to retire to Thebes [g]. Sthenelus, brother of Electrion, availing himſelf of the public hatred which this accident had drawn upon Amphytrion, ſeized on the realms of his fugitive nephew, and gave them to his ſon Euryſtheus [h]. By this uſurpation Hercules was himſelf excluded from the crown of Mycenæ. We know to what dangers Euryſtheus expoſed this hero, with a view to deſtroy him. He without doubt apprehended that he would undertake ſome time or other to dethrone him. Hercules at his death left many children. They were almoſt all brought up by the care of Ceix, king of Trachine [i]. Euryſtheus fearing that they ſhould one day unite to take the crown from him, threatened Ceix, to declare war againſt him if he did not drive them from his court. The Heraclidæ terrified by theſe menaces, quitted Trachine. In vain they ſought an aſylum in moſt of the cities of Greece. They found none who would receive them. The Athenians were the only people who durſt give them a retreat [k]. Euryſtheus would not ſuffer them to ſtay there. Determined to deſtroy them, he led againſt them a powerful army. The Heraclidæ ſupported by the Athenians, and commanded by Iolaus, nephew of Hercules, by Hyllus his ſon, and by Theſeus, they

[d] Apollod. ibid. [e] Id. ibid. [f] Ib. p. 79. 80.
[g] Id. p. 80.; Paſ. l. 9. c. 11. [h] Apollod. l. 2. p. 80.
[i] Id. ibid. p. 122.; Diod. l. 4. p. 301.; Paſ. l. 1. c. 32. p. 79.
[k] Apollod. Diod. Paſ. *locis cit.*; Euripid. Heraclid. v. 19. 50. 145. &c.; Iſocrat. p. 129.

gave

gave battle to Euryſtheus. They gained it. Euryſtheus loſt his life in it [l].

This happy ſucceſs having drawn a great number of ſoldiers to the army of the Heraclidæ, they took almoſt all the towns of Peloponneſus [m]. But a violent plague having afflicted that province, they conſulted the oracle upon it. They were informed, that having entered the country too ſoon, they could not make the plague to ceaſe but by reting. They obeyed, and abandoned Peloponneſus [n].

The oracle, according to cuſtom, explained itſelf obſcurely as to the time that ſhould elapſe before the Heraclidæ ought to make a new attempt. So Hyllus, their chief, who thought he had diſcovered the meaning, returned to Peloponneſus at the end of three years [o]. Atreus who then reigned at Mycenæ, aſſembled all his troops, ſtrengthened himſelf by alliances, and advanced to diſpute the paſſage with the enemy [p]. The armies being in ſight of each other, Hyllus remonſtrated that it would not be ſo well to expoſe the two parties to the chance of a general battle. He therefore propoſed to Atreus and the other chiefs, to chuſe among them a champion, and he offered to fight him, on condition that the event of their combat ſhould determine that of the war. The offer was accepted. They came to this agreement, that if Hyllus was victor, the Heraclidæ ſhould enter into their father's poſſeſſions; but if he was conquered, neither he nor any belonging to him ſhould return into Peloponneſus for an hundred years [q]. Echemus, King of Tegeates, on the ſide of the allies, accepted the challenge of Hyllus, and ſlew him. The Heraclidæ, according to treaty, withdrew their troops, and abſtained from all acts of hoſtility [r].

[l] Apollod. Diod. *locis cit.*; Strab. l. 8. p. 579.

[m] Apollod. et Diod. *locis cit.* [n] Apollod. l. 2. p. 122. 123.

[o] Id. ibid. p. 123. 124. The god had ordered them to wait for the *third fruit*; Hyllus believing that that expreſſion meant three harveſts, returned into Peloponneſus at the end of three years; whereas, according to the intention of the oracle, he ought to have underſtood by the *third fruit*, the third generation.

[p] Diod. l. 4. p. 302.

[q] Herod. l. 9. n. 26.; Diod. l. 4. p. 302. He is miſtaken in fixing this term only fifty years.

[r] Diod. l. 4. p. 302.; Pauſ. l. 1. c. 41. He is miſtaken in placing this event in the reign of Oreſtes.

They

They kept their word; but when the term they had agreed upon was expired, Temenes, Chreſphontes, and Ariſtodemus, deſcendents of Hercules by Hyllus [r], made a laſt puſh to make themſelves maſters of Peloponneſus. This laſt trial ſucceeded better than the preceding. After having equipped a fleet at Naupactus [s], the Heraclidæ, according to cuſtom, conſulted the oracle upon the ſucceſs of their enterpriſe. The anſwer was, that they ought to take *three eyes for the guides of their expedition* [t]. As they endeavoured to find the ſenſe of theſe words, there happened a one-eyed man to ride by on a mule. He was an Ætolian, called Oxylus. Perſuaded that he was the guide deſigned by the oracle, the Heraclidæ joined him in their enterpriſe, and promiſed him Elis for his ſhare [x].

The Achaians and Ionians then poſſeſſed the greateſt part of Peloponneſus [y]. Tiſamenes, ſon of Oreſtes, reigned over Argos, Mycenæ, and Lacedæmon. He took up arms, but was defeated, and periſhed in the battle that was fought [z]. The Heraclidæ took Argos, Mycenæ, and Lacedæmon. They divided theſe three cities among them. They had their poſſeſſions by lot [a]. Temenes had Argos. Lacedæmon fell to the children of Ariſtodemus, who died during the courſe of the expedition. Mycenæ fell to Creſphontes [b]. Oxylus had Elis, as they had promiſed him. He was not ſo eaſily ſettled in it as they had flattered themſelves. Dius, who was the poſſeſſor, diſputed it with him. According to the cuſtom of thoſe times [c], inſtead of expoſing all their troops to the

[r] Pauſ. l. 2. c. 18.

[s] Apollod. l. 2. p. 124.; Pauſ. l. 5. c. 3. While they were preparing this fleet, Ariſtodemus died. He left two children who ſucceeded to his rights. Apollod. ſupra; Pauſ. l. 4. c. 3.

[t] Apollod. l. 2. p. 125.; Pauſ. l. 5. c. 3. [x] Apollod. Pauſ. *loci cit.*

[y] Theſe people had their names from Acheus and Ion, ſons of Xuthus, grandſons of Helen, and great-grandſons of Deucalion.

[z] Apollod. *loco cit*: Pauſ. l. 2. c. 18. only ſays that this prince was obliged to retire with his children.

[a] Apollod. l. 2. p. 125. 126.; Pauſ. l. 4. c. 3. The original of this treaty remained in the time of Tiberius. Tacit. Annal. l. 4. n. 43.

[b] Plato de leg. l. 3. p. 858.; Apollod. l. 2. p. 126.; Pauſ. l. 2. c. 18. l. 4. c. 3.

[c] Strabo l. 8. p. 548.

riſk

riſk of a battle, they agreed to chuſe an Etolian and an Elean, who, by ſingle combat, ſhould terminate the quarrel of the two pretenders. The Etolian got the victory; ſo Oxylus was acknowledged King [d].

It was thus that Peloponneſus went from the family of Pelops to the deſcendents of Hercules. That part of Greece was not the only one that felt the effects of this revolution [e]. The reſt of the countries ſuffered almoſt as much from the conſequences of this event. The people who were firſt attacked, threw themſelves upon their neighbours: theſe here reciprocally carried deſolation into the countries whoſe vicinity made them moſt convenient to them. The ſtrongeſt drove out the weakeſt. Like the waves of an agitated ſea, this people, ſo to ſpeak, flowed back one upon another. The Achaians were the firſt upon whom the ſtorm fell. Forced to quit their country, they threw themſelves upon the Ionians, whom they obliged to quit theirs. Theſe laſt had recourſe to Melanthus, who had juſt aſcended the throne of Athens. Touched with the misfortunes of his ancient countrymen, this prince gave them a retreat in his kingdom [f].

The return of the Heraclidæ into Peloponneſus is one of the moſt remarkable epochs of the Grecian hiſtory. The conſequences were fatal to the whole nation, as I ſhall ſhew, when I come to ſpeak of the ſtate of arts and ſciences in Greece during the courſe of the ages we are going over.

ARTICLE VII.

Obſervations on the ancient government of Greece.

WE have ſeen from the expoſure I have made of the beginnings of the Grecian hiſtory, that the monarchical government was the firſt that took place among theſe people. This is a truth acknowledged by all the writers of antiqui-

[d] Strabo, ib. Pauſ. l. 5. c. 4. *init.*

[e] Id. l. 2. c. 13. *init.*; Herod. l. 2. n. 171.; Diod. fragm. l. 6.; Apud Syncell. p. 179.; Strabo, l. 9. p. 602. [f] Strab. l. 9. p. 602.; Pauſ. l. 7. c. 1.

ty [g]. Theſe famous republics, Athens, Thebes, Corinth, &c. were not formed but till pretty late. Let us examine what were the rights, the power, the offices, and authority of the firſt ſovereigns of Greece. We ſhall ſee by the details we are going to make, how ſhapeleſs and rude the ancient government of theſe people was.

One ought to apply to the firſt kings of Greece, what I have ſaid of the firſt ſovereigns of Aſia. They were very diſtant from the idea we now join to the name of king. The extent of their dominions, their domains, and their power, in no reſpect anſwered to the title they bore; a ſmall city, a town, a few leagues of ground, were honoured with the name of kingdom. There were not then any conſiderable cities in Greece. The greateſt part of the inhabitants lived in the country [h]. Thus when the hiſtory of thoſe times ſpeaks of great monarchies, and of powerful kings, we ought always to underſtand it in compariſon of the neighbouring ſtates. Argolide which formed the kingdom of Agamemnon, was only a very ſmall province. There are in France many eſtates more conſiderable, by the demeſns that depend upon them, than this kingdom ſo boaſted of in Grecian antiquity.

The power of thoſe kings was not much more extenſive than their territories. The affair of Hypermneſtra, daughter of Danaus, proves how very bounded was the authority of the Grecian ſovereigns.

Danaus was provoked at his daughter, becauſe ſhe had not executed an order he had given her to ſtab her huſband the firſt night of their marriage. He durſt not puniſh her by his own authority. He cited her before the people, as guilty of diſobedience: Hypermneſtra was not only acquitted of the accuſation, but was even honoured by the Argives, by being made prieſteſs of Juno their principal divinity [i].

[g] Ariſt. polit. l. 1. c. 10.; Dionyſ. Halicarn. l. 5. p. 336.; Strabo, l. 7. p. 496.

[h] Thucyd. l. 1. p. 11. lin. 70.

[i] Pauſ. l. 2. c. 19.; Euſeb. Chron. l. 2. n. 582. It ſeems in theſe times that the King did not name the high prieſteſſes; but that they were elected by the people. See Iliad. l. 6. v. 300.

We

We likewiſe know that the kings of Attica, ſo far from having ſovereign authority, were often expoſed to the caprices and violences of their people. It was not uncommon to ſee them take up arms againſt their prince, and often to declare war againſt him. The will of the kings was not their rule. They governed themſelves according to their own wills, and often came to blows with each other [k]. They did not apply to the King but when the common danger obliged them to aſſemble: then indeed they ſubmitted themſelves to his conduct [l].

What Homer tells us of the form of government of the kingdom of Ithaca, of that of the Pheacians [m], and of ſome others, may ſerve as a rule to judge of the reſt of the ſtates of Greece. We ought only to look upon the firſt ſovereigns of this country, as chiefs of a kind of republic, where all the affairs were decided by a plurality of voices. The ancient government of the Greeks was, properly ſpeaking, a medley, a compound of monarchy, oligarchy, and democracy [n].

The grandees had great authority, and enjoyed very extenſive privileges. In Homer, Alcinous, King of the Pheacians, ſpeaking to the great men of the ſtate, ſays in plain terms, "There are twelve chiefs who command a people, "and I am the thirteenth [o]." When Theſeus would make Athens the centre of the authority of the whole government, and bring under its juriſdiction all the cities and towns of Attica, he found great oppoſition from the rich and moſt powerful of his kingdom, who were afraid of being ſtript of the beſt part of their authority [p].

The people had likewiſe their rights. They held public

[k] Plut. in Theſ. p. 10. F. [l] Thucyd. l. 2. p. 107. 108.

[m] Though, for reaſons I ſhall give in another place, I think we ought to look upon the iſle of the Pheacians as belonging to Aſia, rather than Europe; yet finding great conformity between the government of theſe people and that of the Greeks, I thought I could ſtrengthen the article I am at preſent treating of by examples drawn from the Pheacians.

[n] Ariſt. polit. l. 3. c. 14.; Dion Halic. l. 5. p. 337.

[o] Odyſſ. l. 8. v. 390. Theſe twelve chiefs, or princes were ſomething like what the twelve peers of France were formerly.

[p] Plut. in Theſ. p. 11.

aſſemblies to deliberate on affairs of ſtate. The kings determined nothing of themſelves. They had a council compoſed of the principal perſons of the nation [q]: they there propoſed what they judged proper. If their project was approved of, they put it in execution after having declared it to the aſſembly of the people [r]. This is what Ariſtotle explains very diſtinctly: "It is eaſy to remark," ſays he, "by the ancient forms of government very exactly copied and written "by Homer, that the kings propoſed to the people what "had been reſolved in council [s]." We ſhall again have occaſion to return to this ſubject, when we ſpeak of the military diſcipline of theſe ancient times [t].

Beſides, the people lived in very great liberty, and almoſt in independence, without any obligation of obeying the ſovereign, if he propoſed what they thought was unjuſt or contrary to the laws of the ſtate, to the received cuſtoms, or the intereſts of particulars. The conſtitution of government among the ancient inhabitants of Germany, was perfectly conformable to that of ancient Greece [u], and conſequently as defective.

It appears further that it was the people who diſpoſed of dignities. In the Odyſſee, Ulyſſes addreſſing his ſpeech to the Queen of the Pheacians, ſays to her: "Great Queen, I "come to embrace your knees, thoſe of the King, and thoſe "of all thoſe princes who are ſeated at your table. May the "gods grant them the favour of leaving to their children "after them the riches and honours which the people have "heaped upon them [x]." The power of the firſt kings of Greece was then extremely limited; their title amounted to

[q] Odyſſ. l. 8. *init.*

[r] Iliad. l. 2. v. 53.; Odyſſ. l. 3. v. 127.; Euſtath. ad Iliad. l. 1. v. 144. We muſt take care to diſtinguiſh *aſſemblies* from *councils*; they were two very different things. *Aſſemblies*, Ἀγοραὶ, were general, all the people had a right to be there. *Councils*, Βουλαὶ, were particular aſſemblies compoſed of choſen perſons.

[s] In moral. l. 3. c. 5. t. 2. p. 32. See alſo Dion. Halic. l. 2. p. 86.

[t] Book 5. chap. 3. Our ancient feudal government is exactly like the government of Greece in the heroic times. They knew no more then in one country than the other: barbariſm reigned equally.

[u] Tacit. de mor. Germ. c. 11.

[x] L. 7. v. 146. &c.

little

little more than a ſort of pre-eminence over the other citizens of the ſtate. Here is the whole amount of their prerogatives.

They had a right to aſſemble the people each in their own diſtrict. They voted firſt, heard the complaints, and determined the differences which happened among their ſubjects [y]. But the principal office of theſe kings, and that in which truly conſiſted the prerogatives of their dignity, was the command of the troops in time of war, and the ſuperintendance of religion. They preſided at ſacrifices, public games, and holy combats [z]. In Homer, the kings always did the office of ſacrificators. The Greeks were ſo thoroughly convinced that the high prieſthood could not be exerciſed but by their kings, that even in the cities that changed their monarchical government to republican, he who preſided over the myſteries and affairs of religion, had the title of king, and his wife that of queen [a]. It was the ſame thing among the Romans; in ſpite of the averſion and contempt which theſe haughty republicans kept up for whatever bore the name of king, yet they had at Rome a king of the ſacrifices [b].

The revenue of the kings was of the ſame nature as that of private perſons. It conſiſted in lands, woods, and above all in flocks [c]. The only difference between kings and private perſons was, that the kings had theſe things in larger quantities. The people even ſhewed their gratitude in no other way but by making them preſents of this kind [d]. The Athenians, to reward Theſeus for the ſervices he had done them, gave him a certain quantity of land and incloſures [e]. Indeed it was the cuſtom in thoſe remote times, for the people to ſhew their eſteem and gratitude for their princes by

[y] Ariſt. polit. l. 3. c. 14. p. 357. B.; Ibid. c. 15. *init.*

[z] Ariſt. ibid.; Demoſth. in Neaeram. p. 873.; Strabo, l. 1. p. 43. l. 14. p. 938.; Plut. t. 2. p. 279. C.

[a] Demoſth. *loco cit*; Pollux. l. 8. c. 9. ſegm. 96.; Heraclid. in Polit.

[b] Cicero de divin. l. 1. n. 40.; Dion. Halicarn. l. 5. p. 278.

[c] Odyſſ. l. 14. v. 98. &c.; Pauſ. l. 4. c. 36.; See Meziriac in ep. Ovid. t. 2. p. 319.

[d] Iliad. l. 6. v. 194. l. 9. v. 573.

[e] Plut. in Theſ. p. 10. E. The people in this reſpect treated heroes like the gods, for the gods had lands conſecrated to them.

preſents.

preſents. For this reaſon it is, that the ſcripture often ſpeaks of the preſents which the princes received from their ſubjects [f]. It was alſo an ancient cuſtom among the Romans, to give as a reward a certain quantity of lands [g].

Independently of their particular demeſns, theſe princes levied ſubſidies on their people [h]. On ſome occaſions they even impoſed new taxes [i]. It was likewiſe uſual to exact tributes from conquered people [k]. It appears that theſe laſt tributes were paid in kind [l].

For the reſt the riches of theſe firſt ſovereigns could not be very conſiderable; it is ſufficient, to be convinced of this, to conſider, that Greece, in the heroic times, was without trade, without arts, without navigation, deſtitute, in a word, of all the reſources which procure abundance and riches to a country [m].

It is true, hiſtory ſpeaks of one Minyas, King of the Phlegians, whoſe revenues were ſo conſiderable, that he ſurpaſſed all his predeceſſors in riches. They add, that he was the firſt King of Greece who built an edifice on purpoſe to depoſite his treaſures [n]. This prince might reign about 1300 years before Chriſt; 50 before the expedition of the Argonauts [o].

They have likewiſe boaſted of the riches of Athamas, King of Orchomene. Athamas was grandſon of Deucalion, and ſon-in-law of Cadmus [p]. I will not diſpute theſe facts, but ſhall only ſay, that we ought to underſtand them with proper reſtrictions. Minyas and Athamas might be looked upon as very rich, comparatively with the other kings of Greece their cotemporaries. But as theſe ſovereigns were not then opulent, it follows that we ought not to apply to

[f] 1 Kings c. 10. v. 25.

[g] Plin. l. 18. ſect. 3. *init.* See likewiſe Tacit. de mor. Germ. c. 15.

[h] Iliad. l. 9. v. 156. [i] Odyſſ. l. 13. v. 14. 15.

[k] Apollod. l. 2. p. 85.; Diod. l. 4. p. 255.; Pauſ. l. 9. c. 37. *init.*

[l] Plut. t. 2. p. 294. D.

[m] See Thucyd. l. 1. n. 11.; Herod. l. 8. n. 137. I ſhall have an opportunity of examining this more particularly when I come to ſpeak of the ſtate of arts and commerce of the Greeks, in the ages we are at preſent employed about. Book 4.

[n] Pauſ. l. 9. c. 36.

[o] See Meziriac. in ep. Ovid. t. 2. p. 56. &c.

[p] Apollod. l. 1. p. 31.; Hygin. fab. 139.

the

the riches of Minyas and Athamas the idea we at this time annex to theſe expreſſions.

I have taken care to remark in the firſt part of this work, that in Egypt and Aſia the throne was hereditary [q]. The ſame maxim prevailed in Greece. The ſceptre paſſed from father to ſon [r], and commonly to the eldeſt [s]. Superſtition alone had ſometimes the power to make them reject the preſumptive heir. This appears by the diſcourſe which Homer makes Telemachus hold with Neſtor, who demands of that young prince, whether the people had taken an averſion to him in conſequence of ſome anſwer of the oracle [t]. If then we except ſome particular circumſtances [u], the order of the crowns paſſing from the father to the ſon, ſeems to have been conſtantly and generally followed. We need only caſt our eyes on the Grecian hiſtory to be convinced of this truth.

I think I ought not to finiſh this article without ſpeaking of oracles, and the influence which they had on the conduct of the people. The queſtion of Neſtor to Telemachus, which I have juſt now mentioned, brings us naturally to it.

We ſhould never have done were we to cite all the examples which ancient hiſtory affords of the power and effect of oracles. We may find traces ſufficiently plain in the ſhort account I have given of the principal events that happened in Greece, during the ages that we are at preſent running over. Theſe facts ſhew us to what a degree the Greeks were then blinded with that ſuperſtition. It will ſuffice to ſay, that nothing was done without the advice of the oracles. They conſulted them not only for great enterpriſes, but even in private affairs. Were they to make war or peace,

[q] Book 1.

[r] Odyſſ. l. 1. v. 387. l. 16. v. 401.; Ariſt. polit. l. 3. c. 14. p. 357. A.; Thucyd. l. 1. p. 12. lin. 71. The genealogy which Homer makes of the ſceptre of Agamemnon, Iliad. l. 2. v. 46. & 101. is alone ſufficient to prove that the crown was hereditary among the Greeks; but this fact is elſewhere eſtabliſhed by a number of paſſages of the ſame poet.

[s] Apollod. l. 3. p. 202.; Diod. l. 5. p. 376. lin. 96. l. 6. fragm.; Apud. Syncell. p. 179. C.

[t] Odyſſ. l. 3. v. 215. See alſo l. 16. v. 96. & Euſtath. p. 1464. lin. 25.

[u] See art. 2. & 3.

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to found a new city, avert ſome calamity, eſtabliſh new laws, reform ancient ones, change the conſtitution of the ſtate, they had recourſe to the oracle. Its anſwer was the ſupreme authority which determined and influenced the people. If a private perſon wanted to marry, undertake a voyage, had he an important affair in hand, was attacked with a dangerous diſtemper, he went and conſulted the oracle. In a word, nothing more generally influenced the conduct of the ancient people of Greece *. 'Tis to the oracles that we muſt aſcribe moſt of the great events we read of in the firſt ages in the Greek hiſtory; events, for the moſt part, ſingular, unexpected, and of which we find no example in the latter ages. We ſee among thoſe of which we are now ſpeaking, revolutions and ſudden changes, which can neither be attributed to policy nor the force of arms. From whence then did they ſpring? From oracles. They even directed the manner of bringing about theſe events. They threw that uncertainty on them which we always look on with aſtoniſhment. We ought alſo to aſcribe to oracles the new ſorts of worſhip which we know to have been introduced at different times into Greece.

All theſe movements ſprung from a principle unknown to us at preſent. In this conſiſts the moſt eſſential and moſt remarkable difference of the genius of former nations, and thoſe of this time. At this day among the people of Europe, policy and the force of arms are the only means ambition can employ. We very ſeldom ſee ſuperſtition ſeduce the minds to ſuch a pitch as to occaſion revolutions; but in the times I mention, it was always this ſeduction that occaſioned revolutions, and decided the fate of empires. And what means did they uſe to effect this ſeduction? The oracles.

If we wanted evidences to prove the rudeneſs and ignorance of the Greeks in the heroic times, their credulity, and their reſpect for oracles, are proofs more than ſufficient

* See Plat. de leg. l. 6. p. 869. A. & l. 8. *init.*

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to demonſtrate that truth. This ſpecies of ſuperſtition has no force or empire but proportionally to the groſs ignorance of the people; witneſs the ſavages, who do not undertake any thing till they have previouſly conſulted their divines and their oracles.

ARTICLE VIII.

Of the ancient cuſtoms and firſt laws of Greece.

BEfore we enter on the ſubject, it is proper to recapitulate ſummarily what I have ſaid in the firſt part of this work, of the origin and diſtinction of laws. I have ſhewn that, originally, the people were governed by *cuſtoms*, which, by length of time and long uſage, acquired the force of *laws*. We have called theſe ſorts of laws, *natural laws*. I have ſaid afterwards, that to make up for the little extent and preciſion of theſe natural laws, the firſt kings had made different regulations, to which we have given the name of *poſitive* laws. I have diſtinguiſhed theſe poſitive laws into two claſſes; into *political* laws, and *civil* laws. The reader cannot have forgot, that under the name of *political* laws, I have compriſed all the rules which relate to the ſupporting the civil government of the ſociety, and properly form the conſtitution of the ſtate. Such are the laws on the obligations of marriage; the penal laws, thoſe which preſcribe the form and ceremonies of public worſhip, *&c.* I have included under the name of *civil* laws, all thoſe eſtabliſhed to regulate the particular intereſts of the different members of the ſociety. Such are the laws concerning ſales, commerce, contracts, *&c.* I have ſaid alſo, that the inſtitution of political laws was prior to the inſtitution of civil laws. We ſhall diſcover from what hiſtory acquaints us of the eſtabliſhment and progreſs of the laws of Greece, the truth of all theſe propoſitions.

We know of no poſitive laws in Greece more ancient

than thoſe of the Athenians. They were indebted for them to Cecrops, who aſcended the throne about 1582 years before Chriſt. It is true, before this prince, Phoroneus had given ſome laws to the inhabitants of the Argolide. But there are none of them preſerved. Beſides, it does not appear, that the other people of Greece have ever borrowed any thing from the Argives; whereas the laws of Athens have been adopted, not only in almoſt all the cities of Greece, but even in the greateſt part of Europe[y].

We muſt then fix the epoch of the eſtabliſhment of poſitive laws in Greece to the year 1582 before the Chriſtian æra, the time of the arrival of Cecrops in Attica. But it is not natural to ſuppoſe, that till the time of this prince, Greece was without any kind of law. We ought then to conclude, that, till that time, the greateſt part of the Greeks knew no other laws but thoſe tacit conventions, which I have affirmed to have been the baſis and foundation of all ſocieties, and which I have called *natural* laws[z].

Having given a particular account of the rules eſtabliſhed by Cecrops, in the article of Athens; the reader may have obſerved, that all theſe regulations are only political inſtitutions; as the inſtitution of marriage, the ceremonies of religion, thoſe of funerals, and the eſtabliſhment of tribunals to judge of crimes and offences. There is no mention made of any ordinance which one can range in the claſs of civil laws. We ought not to be ſurpriſed at this. The Athenians, like all the other people of Greece, had not yet applied themſelves to agriculture, the practice of which was not well eſtabliſhed in that part of Europe, till towards the reign of Erechtheus, about 170 years after Cecrops[a]. It is at this æra we ought to fix the knowledge and eſtabliſhment of civil laws among the Greeks[b].

[y] Adſunt Athenienſes, unde humanitas, doctrina, religio, fruges, jura, leges ortae, atque in omnes terras diſtributae putantur. Cicero pro L. Flacco, n. 26. t. 5. p. 261.; Lucretius, l. 6. *init.*; Macrob. ſat. l. 3. c. 12. p. 413.

[z] See part 1. book 1. [a] Marm. Oxon. ep. 12.

[b] See what I have ſaid on this ſubject, part 1. book 1.

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Here is, then, in a few words, a faithful account of the origin and progreſs of the laws of Greece. But it muſt be obſerved, that in the detail we are going to enter upon, I ſhall follow the order of the matters, rather than ſtrict chronology, which would too much interrupt the ſeries and connection of objects; yet I ſhall make mention of no laws whoſe eſtabliſhment does not relate to the ages we are now examining.

The ſtate of barbariſm into which Greece was plunged before the arrival of the different colonies which came from Egypt and Phœnicia to ſettle there, permitted the inhabitants to live in great liberty in their commerce with women. The engagements and bonds of conjugal union were totally unknown to them. Cecrops was the firſt who drew them from this diſorder; he convinced them that marriage was the foundation and ſupport of ſociety. He eſtabliſhed the union of *one* with *one* [c]. From this prince the Greeks ſubjected themſelves inviolably to that law. They even conceived ſo high an idea of the conjugal union, that there paſſed above two centuries, before the widows durſt marry again: a proof that they looked upon theſe ſecond marriages to be contrary to good morals, is, that hiſtory has tranſmitted the name of her who firſt entered on a ſecond marriage. It was Gorgophona, daughter of Perſeus and Andromeda, who gave the example. This princeſs having firſt eſpouſed Perieres, King of the Meſſenians, and having ſurvived that prince, ſhe married again to Oebalus, King of Sparta [d]. Oebalus reigned about 1348 years before Chriſt. They fix the epocha of Cecrops 1582 years before it. Thus, for the ſpace of 234 years, the Greek hiſtory does not furniſh one example of a widow who was remarried; and, till Gorgophona, it was a cuſtom which they looked upon as inviolable, that every woman who loſt her huſband ſhould paſs the reſt of her days in widowhood [e].

[c] Book 1. article 1.
[d] Pauſ. l. 2. c. 21.
[e] Pauſ. l. 2. c 21.

In all appearance, the example of Gorgophona was not long of being followed: yet it appears, that, in the heroic times, the widows who remarried, offended againſt decency. This is what one may fairly conclude, from the different words which Homer puts into the mouth of Penelope. The diſcourſe which Ulyſſes had with that princeſs, the moment of his departure for Troy, is ſtill more poſitive; he ſays to her, "That he does not know whe-"ther he ſhould eſcape from the dangers of that war; "and, if he ſhould periſh there, ſhe ſhould chuſe, as "huſband, the prince who appeared moſt worthy of her[f]." It is true, Virgil makes Dido ſpeak quite another language. There is a perpetual combat in the heart of that unfortunate Queen, between the liking ſhe has taken for Æneas, and the remorſe of entering on a ſecond marriage. She repreſents this action, as an offence againſt her honour[g]. But Virgil would not have made Dido ſpeak thus, but in compliance with the manner of thinking of the Romans, with whom ſecond marriages, though permitted, were diſhonourable[h].

Heſiod gives us reaſon to think, that anciently it was the cuſtom in Greece, not to marry the young men till they were thirty, and the girls till they were fifteen[i]. Preſages determined the moment in which the marriage ought to be ſolemnized. To this they paid great attention[k]. There is great reaſon to believe, that in the earlieſt times, they determined nothing relating to the degrees of conſanguinity: except the union of fathers and

[f] Odyſſ. l. 18. v. 258. &c.

[g] Æneid l. 4. v. 19 25. -- 54.

Huic uni forſan potui ſuccumbere culpae,
Vel pater omnipotens. --------
Ante, pudor, quam te violem, aut tua jura reſolvam.
-------- Solvitque pudorem, &c.

[h] Val. Max. l. 2. c. 1. n. 3.; Martial. l. 6. epig. 7.; Quintil. declam. 306. p. 627.

[i] Opera & dies, v. 696, &c. On this cuſtom is founded the calculation by which Herodotus, imitated in this by the greateſt part of the ancient chronologers, eſtimates the generations at thirty-three years, and reckons an hundred years for three generations. l. 2. n. 142.

[k] Heſiod. loco. cit. v. 801.

mothers

mothers with their children, all other alliances seem to have been permitted[l].

Children could not contract any alliance without the consent of their fathers, who had a right to determine about their settlement[m]. They brought them up to have a great respect for those who had given them birth. It is even one of the most ancient statutes of Greece. In the laws attributed to Triptolemus, we find one which expressly orders to honour parents[n].

At this time, a great number of children is looked upon as a burthen; but, in the first ages of Greece, it was an honour and an advantage to be the father of a numerous family. The Greeks greatly esteemed fruitfulness. Plutarch observes, that Pelops was the most powerful and most considerable of all the kings his cotemporaries, not only by his riches, but yet more by the number of children he was the father of[o]. The ancient poets greatly extolled the happiness of Priam, for being the father of fifty children. We see in scripture, David glories for having had many children[p]. It was likewise a very great reproach for a woman to be barren[q]. The Chinese are of the same opinion. They look upon barrenness with so much horror, that married people had rather have committed the greatest crimes, than die without children. The leaving no posterity, is ranked among the greatest of evils[r].

The Greeks thought the same. They looked upon a man who died without children, to have had the worst lot in the world. Phœnix, in the Iliad, wanting to shew with what an excess of passion his father was transported against him; "He invoked," says he, "the terrible furies, conjuring "them, that I might never have to sit upon my knee, "a son from my own body[s]." It was to remedy, in some measure, the misfortune of not having children, that

[l] Feithius antiq. Hom. l. 2. c. 13. p. 216.
[m] Ibid. p. 219. 220.
[n] Porphyrius de abstin. l. 4. p. 431.
[o] In Thes. p. 2. A.
[p] 1 Chron. c. 28. v. 5.
[q] Gen. c. 30. v. 23.; 1 Sam. c. 1. v. 5.; Luke c. 1. v. 25.
[r] Martini. hist. de la Chine, l. 6. p. 21.; Lettr. edif. t. 5. p. 56.
[s] L. 9. v. 455. &c.

the

the Greeks contrived adoption, a cuſtom that was very ancient. Pauſanias tells us, that Athamas, king of Orchomene, ſeeing himſelf without male iſſue, adopted his grand-nephews[t]. Diodorus ſupplies us with another example of the ſame antiquity[u]: and Plutarch ſays, that Caſtor and Pollux, having made themſelves maſters of Athens, demanded to be initiated into the great myſteries; but they were not admitted, till they were adopted by Aphidnes, as Hercules had been by Pylius[x]. It is probable, that the Greeks took this cuſtom from the Egyptians, among whom we ſee it was eſtabliſhed in the moſt remote times[y].

The girls who died without being married, were thought very unhappy. Herodotus gives us a very ſtriking proof of this way of thinking in the adventure of Polycrates, tyrant of Samos. Polycrates, ſeduced by the promiſes of Orates, governor of Sardis, was going to meet that viceroy: his daughter, who preſaged nothing but misfortunes from the journey, uſed all her efforts to diſſuade him from it. Seeing that he would go, in ſpite of all her remonſtrances, ſhe plainly told him, that nothing but misfortunes would happen to him. Polycrates, angry at her ſpeech, and willing to ſhew his reſentment, threatened not to marry her for a long time, if he returned ſafe and ſound from the journey. But this menace was not ſufficient to ſilence her zeal. She wiſhed its accompliſhment; liking better, ſays Herodotus, to be without a huſband, than to be deprived of her father[z]. We ſee, likewiſe, in Sophocles, Electra bewailing bitterly her not being married[a].

I have remarked in the firſt part of this work, that originally whoever addreſſed a woman for marriage in ſome

[t] L. 9. c. 34.
[u] L. 4. p. 312.
[x] Plut. in Theſ. p. 16. A.
[y] Exod. c. 2. v. 10.
[z] L. 3. n. 125.

[a] In Electra, v. 166. 167. Tradition ſays, that this princeſs was never married, and that made them give her the name of Electra. Ælian. var. hiſt. l. 4. c. 26. ----- Pauſ. l. 2. c. 16. and Hygin. fab. 122. nevertheleſs ſay, that Oreſtes had married that princeſs to Pylades; and, according to the teſtimony of Hellanicus, ſhe had two children by him. But this opinion does not appear to have been much followed by the ancients.

ſenſe

ſenſe bought her, either by ſervices he did to the father of her he would marry, or by preſents which he made to herſelf [b]. This cuſtom was alſo obſerved in Greece in the moſt remote times [c]. He who wanted a wife, was obliged to make preſents of two ſorts; one to the father, to engage him to give his daughter; and the other, to the perſon whom he demanded in marriage. In the Iliad, Agamemnon ſays to Achilles, that he will give him one of his daughters, without requiring of that prince the leaſt preſent [d]. Pauſanias alſo gives us a proof of this ancient uſage: Danaus, ſays this author, not finding any body to marry his daughters, on account of the horrible crime they had committed, cauſed it to be publiſhed that he would not demand any preſents of thoſe who would marry them [e]. At this day it is a cuſtom among the Greeks, that whoever will marry, buys his wife by the preſents he is obliged to make to the parents of her he marries [f].

Yet we ſee that anciently the preſents the huſband made, whether to the father-in-law, or to the perſon he was to marry, did not excuſe the father from giving to his daughter a certain portion, and this properly made the dower of the bride [g]. And when a widow choſe to marry again, the cuſtom was, that ſhe could not diſpoſe of her dower that ſhe had on her firſt marriage, nor carry it to her ſecond huſband. All her poſſeſſions from that moment devolved to the children of her firſt marriage. Her father was obliged to give her a new dower [h]: But if it happened that a ſon was ſo unnatural as to turn out his mother from his father's houſe, he was obliged to give her all that ſhe had brought [i].

As to the form in which they made theſe contracts of marriage, I have before obſerved, that at the time when writing was not known, they did all in the preſence of wit-

[b] Book 1. [c] Ariſt. polit. l. 2. c. 8. p. 327. B.

[d] L. 9. v. 146. Homer does not ſpeak of the preſent made to the bride; but only of that to be made to the father. The preſents made to the bride were called ἕδνα. See Meziriac. in Ovid. ep. t. 2. p. 317.

[e] L. 3. c. 12. [f] Voyage de la Boulaye, le Gouz. p. 411.

[g] Iliad. l. 9. v. 147. 148. The dower which the father gave to his daughter was called μείλια. Ibid.

[h] Odyſſ. l. 2. v. 53. [i] Ibid. v. 132. 133.

neſſes

neſſes [k]. We find the ſame practiſed in the primitive ages of Greece. Before theſe people knew writing, the practice was to give pledges and ſecurities for the aſſurance of the dower and the marriage-contract [l]. It even appears from Homer, that the Greeks were a long time without knowing the uſe of written contracts and obligations. It was the depoſition of witneſſes which made the proof of the reality of deeds [m]: and it was alſo for this reaſon that anciently among the Greeks, as well as among all other people, judgments were given before all the world in a public ſquare [n].

We ſee that in the heroic times there were in Greece penalties eſtabliſhed againſt adultery. Thoſe who were accuſed, were obliged to pay a pecuniary fine to the huſband who had convicted them [o]. The father of the wife taken in adultery was likewiſe obliged to give back to his ſon-in-law, all the preſents that he had received for his daughter [p].

I have already ſaid that Cecrops had eſtabliſhed marriage one with one; therefore the plurality of wives was not allowed among the Greeks. They could only marry one [q]. But it appears, that, from the moſt ancient times, it was permitted to divorce, when they thought they had lawful reaſons [r]. What ſurpriſes me moſt, is, that unlawful commerces were not then diſhonourable. The birth of children which proceeded from them, was not looked upon as ſcandalous. Agamemnon, to encourage Teucer, brother of Ajax, to continue his exploits, repreſents to him, that, though he was not the legitimate ſon of Telamon, that prince had not given leſs attention or taken leſs care of his education [s]. Now, if there had been at that time any ſort of ſhame attached to theſe ſorts of births, it is not probable that Homer would have made Agamemnon make ſuch a reproach to one of the

[k] Part 1. book 1.
[l] Pollux l. 3. c. 3. ſegm. 36.; Servius ad Æneid. l. 10. v. 79.
[m] Iliad. l. 18. v. 499. &c.
[n] Ibid. v. 497. 498. &c. See part 1. book 1.
[o] Odyſſ. l. 8. v. 332. 347. & 348. See alſo Diod. l. 12. p. 491. lin. 89.
[p] Odyſſ. l. 8. v. 318. [q] Herod. l. 2. n. 92.
[r] See Pauſ. l. 9. c. 29. p. 870.; Pollux. l. 3. c. 4. ſegm. 46.
[s] L. 8. v. 281. &c.

principal

principal officers of the army, and with whom he in other reſpects appears to be well ſatisfied.

We ſee likewiſe in the Odyſſee, Ulyſſes ſays he was the ſon of a concubine [t]. This is a proof that they avowed at that time theſe ſorts of births without any ſhame. It is likewiſe ſaid in ſcripture, that Gideon had ſeventy children from the many women he had married, and by a concubine, who had even been his ſervant, he had a ſon called Abimelech, who after the death of his father was King of Sichem [u]. With our anceſtors baſtardy had nothing diſhonourable in it. Hiſtorians give the title of baſtards to a number of the moſt illuſtrious and moſt conſiderable perſons. The famous Count de Dunois is not more known by that name than by that of the baſtard of Orleans. There is often mention made of the baſtard of Rubempré, and many others. It was even a quality which they did not fear to uſe in their public acts. We often find ſigned, *ſuch a one*, baſtard of *ſuch a one*. The letters patent granted by William the Conqueror to Alain, Count of Britany, begin thus, "William, called the *Baſtard*, King of England, *&c.* [x]." But to return to the Greeks: The lawful children inherited the goods of their fathers and mothers [y]: if they were many, they divided the inheritance; and it does not appear that at that time there was any regard paid to ſeniority. This was the manner in which they proceeded to divide. They made with the utmoſt exactneſs as many lots as there were heirs, and afterwards drew them [z].

This method was not confined to the diviſion of the goods of particulars. It took place even in the houſes of ſovereigns. Neptune, in the Iliad, ſays to Iris who came from Jupiter to order him not to ſuccour the Greeks any more, that he was equal in dignity to Jupiter: "We are," adds he, "three

[t] L. 14. v. 202.

[u] Judges c. 8. v. 30. 31. c. 9. v. 6. & 18. Non enim erat vetitus eo tempore concubinatus, neque concubina a matrona, niſi dignitate, diſtabat, ſays Grotius on this paſſage.

[x] Mem. de Trevoux. Janv. 1711. p. 118.

[y] Odyſſ. l. 7. v. 149.

[z] Odyſſ. l. 14. v. 208.; Ariſt. polit. l. 6. c. 4. p. 417. B.

" brothers, all three sons of Saturn and Rhea. Jupiter is " the first, I the second, and Pluto the third, the empire " was divided among us. They made three lots, which " were not distributed according to the order of birth. They " drew the chances, and it was fortune which determined " the part that each should have [a]." One might quote many more examples of this ancient practice [b] Though in the division of estates the condition of the brothers was equal, yet they had great privileges attached to the right of seniority. These privileges consisted in the honour and respect which the younger were obliged to pay to their elder brothers, and in the authority the elder had over the younger. We might even say, that the Greeks looked upon the right of seniority as a right divine. Homer gives us a very sensible proof in the passage of the Iliad I am going to cite. Jupiter on sending Iris to carry his orders to Neptune, says to that goddess: " My brother ought to know, that, in quality of el- " dest, I am above him [c]." Neptune makes some difficulty to obey the orders of Jupiter: Iris, to determine him, insists on the quality of Jupiter, and asks Neptune, if he is ignorant, " that the black furies always accompany the eldest, to revenge the outrages they receive from their brothers [d]."

The children of concubines had no right to the inheritance of their fathers; for in those sorts of commerces they had neither conventions nor solemnities. Accordingly we see none of the children who sprung from them, partake in the succession with the legitimate children. They had only what their brothers chose to give to them [e]: even the order of successions was so well regulated, that when any one died without issue, his effects went to his collateral relations [f].

The

[a] L. 15. v. 186. &c. Virgil has exactly followed this tradition. He makes Neptune also say that the empire of the sea fell to him by lot. Sed mihi sorte datum. Æneid. l. 1. v. 138.

[b] See what we have said above of the division of Peloponnesus among the descendents of Hercules, art. 7. See Apollod. l. 1. p. 4.; Diod. l. 3. p. 229.; Paus. l. 8. c. 53.; Strab. l. 9. p. 601. B.

[c] L. 15. v. 165. 166. [d] Ibid. v. 204.

[e] Odyss. l. 14. v. 210.

[f] Χηρωσαὶ δὲ διὰ κτῆσιν δατίοντο. Iliad. l. 5. v. 158.

Eustathius,

The ſame ſpirit of order which had aſſigned to each a certain quantity of goods for their ſubſiſtence, made them look with contempt on thoſe men whom ſloth kept from labour, and who were ſo mean as to live on the liberality of rich people. When Ulyſſes, in the Odyſſee, in the form of a beggar, preſents himſelf to Eurymachus; that prince ſeeing him ſtrong and robuſt, offers him work and good wages: but at the ſame time gives him to underſtand, that they had too many of thoſe beggars by profeſſion, who liking better to live in idleneſs, than to get their bread by an honeſt induſtry, were the object of general contempt [g]. They had alſo the higheſt contempt for thoſe people who having no fixed place of reſidence, wandered continually from city to city. They looked upon a vagabond as an exile, as a wretch, who having abandoned his country, ought to be caſt out from ſociety [h].

But what is moſt aſtoniſhing, is, that then theft was not a diſhonourable action [i]. The ancients made no ſcruple about it. It was only ſhameful when they were taken in the fact [k].

The greateſt part of the laws which I have juſt given an account of, were not in uſe till after the eſtabliſhment of agriculture. The firſt legiſlators of Greece had omitted nothing to engage their people to apply themſelves to

Euſtathius, p. 533. lin. 30. and the ancient ſcholia ſt underſtand by the word, χηρωσαὶ, *truſtees*; and from this they ſuppoſed magiſtrates eſtabliſhed to take care of the effects of old men who had loſt their children, and to preſerve them for their collateral relations, by hindering thoſe unhappy fathers from diſpoſing of them. But beſides that neither Euſtathius, nor the ancient ſcholiaſt, have quoted any author who mentions the eſtabliſhment of theſe pretended magiſtrates, if they had attended to the word δατίονται, to which χηρωσαὶ is the nominative, they might have ſeen plainly that χηρωσαὶ could not on that occaſion ſignify *truſtees*. Truſtees, in effect, never ſhare in the ſucceſſion; but, agreeable to the etymology of their name, they are charged with the care of it. It is certain then, that in this paſſage χηρωσαὶ ought to be underſtood of collaterals. It is taken in this ſenſe by Heſiod. Theog. v. 606. after whom Heſychius, voce χηρωσαὶ, ſays expreſsly χηρωσαὶ οἱ μακρόθεν συγγενεῖς; they call χηρωσαὶ, very diſtant relations. See alſo Pollux, l. 3. c. 4. ſegm. 47. and the ſcholiaſt of Heſiod, p. 289.

[g] L. 18. v. 356. &c.

[h] Iliad. l. 9. v. 644. l. 16. v. 423. See what Plato ſays on this ſubject by Socrates, in Crito.

[i] Iliad. l. 6. v. 153.; Odyſſ. l. 19. v. 395. See Feith. l. 2. c. 9.

[k] Suid. in voce Κλέπτης, t. 2. p. 325.

the culture of the earth [l]. For this end they had eſtabliſhed many wiſe and moſt uſeful laws, as the prohibition to have above a certain quantity of arable land; of ſelling and alienating their inheritance. They had likewiſe a law which prohibited their mortgaging their arable lands [m]. All theſe laws, according to Ariſtotle, were of the higheſt antiquity, and go back to the ages of which we are now giving the hiſtory [n].

I have ſaid it was in the reign of Erechtheus, the ſixth King of Athens from Cecrops, that the knowledge of tillage was diſperſed over Greece under the auſpices of Ceres and Triptolemus. As the eſtabliſhment of agriculture neceſſarily implies the inſtitution of civil laws, all the writers of antiquity have attributed the firſt laws of Greece to Ceres and Triptolemus [o]. The moſt certain and moſt general tradition ſays, that the Athenians were the firſt to whom Ceres taught agriculture [p]. Accordingly we have ſeen, that they paſſed for the authors of all civil laws [q]. They have likewiſe attributed to them the invention of all the forms of juſtice and the order of proceedings [r].

To this ſhort explanation, I ſhall confine myſelf as to

[l] It is remarked, that, in all the ancient traditions of Greece, Neptune is always ſaid to have failed in his diſputes with Minerva, Apollo, and the other gods. See Plut. t. 2. p. 741.; Pauſ. l. 2. c. 1. p. 112. c. 15. p. 145.

Plutarch even ſays, that the diſpute between Minerva and Neptune, to know whether ſhe or the god ſhould be patron of Athens, and the ſucceſs of Minerva, was a fable invented and propagated by the ancient kings of Greece, to take from their people the deſire of going to ſea, and to bring them to cultivate the earth. In Themiſtocle, p. 121. E.

[m] Ariſt. polit. l. 2. c. 7. p. 323. l. 6. c. 4. p. 417.

[n] Ibid.

[o] A quibus initia vitae atque victus, legum, morum, manſuetudinis, humanitatis exempli hominibus et civitatibus data ac diſpertita eſſe dicuntur. Cicero in Verr. act. 5. n. 72. t. 4. p. 478.

Prima Ceres - - - -

Prima dedit leges. Cereris ſunt omnia munus. Ovid. Met. l. 5. v. 341. &c; Diod. l. 1. p. 18. l. 5. p. 324. & 385.; Plin. l. 7. ſect. 57. p. 412.; Macrob. ſat. l. 3. c. 12. p. 413.

It is for this reaſon that we ſo often find the epithet θεσμοφόρος, *legifera*, given to Ceres. See the hiſtorical explication of the fable of Ceres by Le Clerc. Bibl. Univ. t. 6. p. 47.

[p] Cicero in Verr. act. 4. n. 49. t. 4. p. 396.; Diod. l. 1. p. 34. l. 5. p. 333. 385.

[q] Art. 8. [r] Ælian. var. hiſt. l. 3. c. 38.

what

what I have to ſay of the origin and eſtabliſhment of the civil laws of Greece. The writers of antiquity have tranſmitted to us no particulars on an object ſo important. They not only do not relate the purport of any law, they do not even acquaint us who were the magiſtrates or the tribunals eſtabliſhed for determining civil diſputes. It is likewiſe remarkable enough, that in the few laws that are preſerved, attributed to Triptolemus, political rules only are mentioned. See theſe laws as reported by Porphyry [t].

The firſt, which we have already had occaſion to ſpeak of, ordains to honour our parents [u].

The ſecond forbids to offer any thing to the gods but the fruits of the earth.

The third ordains to do no harm to animals.

Theſe laws did nothing but renew and confirm thoſe of Cecrops, who, in inſtituting a regular worſhip in Greece, had forbidden to offer any thing to the Deity that had life [x]. I cannot on this occaſion diſpenſe with myſelf from ſaying a word or two of the famous myſteries of Eleuſis.

I have ſhown before, that Cecrops firſt taught the Greeks to honour the Supreme Being by a public and ſolemn worſhip [y]. But the religious ceremonies eſtabliſhed by that prince, did not produce ſo diſtinguiſhed an effect as the inſtitution of the myſteries celebrated at Eleuſis in honour of Ceres. Of all the obſervances of the Pagan religion, the ceremonies uſed in theſe myſteries were thoſe which moſt attracted the admiration and reſpect of the ancients. They aſcribe the inſtitution to Erechtheus, the ſame under whom the knowledge of agriculture came into Greece [z]. I ſhall not undertake to remove the obſcure veil which deprives us of the knowledge of theſe ceremonies ſo boaſted of in antiquity. I ſhall only remark, that the moſt judicious and beſt inſtructed writers of Greece and Rome were perſuaded, that theſe myſteries had contributed more than any other means to ſoften the ſavage manners of the firſt inhabitants of Eu-

[t] De abſtin. l. 4. p. 431. [u] Art. 8. [x] Art. 1. [y] Art. 1.
[z] Diod. l. 1. p. 31.; Marm. Oxon. ep. 11.

rope.

rope. They have not heſitated to attribute to theſe religious ceremonies, all the knowledge and politeneſs which the moſt enlightened ages enjoyed. "Theſe are the myſteries," ſays Cicero, "which have drawn us from the barbarous "and ſavage life our anceſtors led. It is the greateſt good "that has come to us from the city of Athens, among ſo "many that ſhe has ſpread among mankind. It is ſhe that "has taught us not only to live with joy, but ſtill more to "die with tranquillity, in the hope of becoming more hap-"py [z]." Iſocrates had ſaid as much a long time before [a]. The Greeks deſigned the myſteries of Eleuſis by a word which in their language ſignified *perfections* [b], becauſe in initiation they acquired, as they believed, the knowledge of truth and the love of virtue. The Latins expreſs theſe myſteries by the term *initia, beginnings*; becauſe, ſays Cicero, the doctrine taught in the myſteries, contains the principles of an happy and tranquil life. Thus the two moſt poliſhed and learned nations of antiquity were perſuaded, that they could not give ſufficient praiſe to the eſtabliſhment of the Eleuſinia. It now only remains, that I ſhould ſay ſomething of the ancient penal laws of Greece.

The penal laws are juſtly thoſe about which the firſt legiſlators of Greece ſeem to have moſt employed themſelves. Hiſtorians place in the ages we are now examining, the inſtitution of many tribunals, whoſe only buſineſs was to judge of criminal matters.

The Areopagus was the moſt ancient tribunal of Greece, and it was to take cogniſance of murders that Cecrops had eſtabliſhed it [c]. Originally, the Areopagi had cogniſance over all ſorts of homicides. But afterwards their juriſdiction was confined to murders committed with premeditated deſign [d]. They erected, a few ages after the Areopagus, an-

[z] De leg. l. 2 n. 14. t. 3. p. 148.
[a] Panegyr. p. 65.
[b] Τελεταί.
[c] Iſocrat. panegyr. p. 69. See alſo Demoſt. in Ariſtocrat. p. 735.; Plin. l. 7. ſect. 57. p. 415.; Pauſ. l. 4. c. 5. *init.*
[d] Demoſth. in Ariſtocrat. p. 728. E.; Ælian. var. hiſt. l. 5. c. 15.

other

other tribunal called Delphinium, to judge thoſe who, acknowledging they were guilty of homicide, pretended to have had reaſon for committing it [e]. It was at this tribunal that Theſeus was acquitted, when he had put to death the children of Pallas, and Pallas himſelf, who had plotted againſt the ſtate [f]. They afterwards eſtabliſhed the Palladium, where thoſe who had committed an involuntary murder preſented themſelves [g]. Demophoon, ſon of Theſeus, was the firſt who appeared before this tribunal [h].

The laws of Greece agreed in this with thoſe of Egypt, to puniſh with death homicide committed with a premeditated deſign [i]. Dedalus having been accuſed and convicted before the Areopagus for having killed his nephew Talus, was condemned to death by that tribunal, and only ſaved himſelf from the puniſhment of his crime by flight, and retiring into the iſle of Crete [k]. I ſhall obſerve on this ſubject, that among the Greeks it was very eaſy for murderers to eſcape from the puniſhments they feared.

The manner in which they proceeded in Greece in the proſecution for murders, was very different from that they uſe in our tribunals. In France, the care of the purſuit and puniſhing murderers belongs to the public adminiſtration. The firſt ſtep that juſtice takes on theſe occaſions, is to arreſt the accuſed, againſt whom complaint has been made; they afterwards examine whether he is really guilty of the crime imputed to him, and he is retained in priſon till final judgment is given. It was not ſo with the Greeks; they had no public officer charged by the ſtate to look after murderers. The relations of the deceaſed alone had the right to purſue revenge. Homer ſhews it clearly [l]. We may add to the

[e] Ibid.
[f] Pauſ. 1. c. 28. p. 70.
[g] Ælian. l. 5. c. 15.
[h] Plauſ. l. 1. p. 69. See Pollux. l. 8. c. 10.
[i] Demoſth. in Midiam, p. 610. A.; in Ariſtocrat. p. 738. C. See alſo Plat. de leg. l. 9. p. 934. B. p. 935. E.
[k] Diod. l. 4. p. 319. & 320.; Apollod. l. 3. p. 206.
[l] Iliad. l. 9. v. 628. &c.

teſtimony

teſtimony of this great poet, that of Pauſanias who ſpeaks in many places of this ancient uſage [m]: a uſage that appears to have always ſubſiſted in Greece [n]. But the ſame laws which had given to the relations of the deceaſed alone the right of proſecuting the murderer, expreſsly forbade that he ſhould be delivered into their hands [o]; and as the public adminiſtration did not interfere to arreſt the murderers, they enjoyed a full and abſolute liberty during all the proceedings. Thus in a caſe where the guilty perſon might apprehend the juſt puniſhment of his crime, he could eſcape it by flight. No one had a right to ſtop him [p]. The only precaution he had to take, was to diſappear after his firſt defence [q]. For when the proceedings were ſo far advanced, that the judges were going to paſs ſentence, the accuſed was then ſubject to all the ſeverity of the laws; and if he was declared guilty and convicted of the crime laid to his charge, the magiſtrates ſeized on him to make him ſuffer the puniſhment to which he was condemned [r]. This proviſional liberty which they left to the accuſed, proves clearly, that it was the cuſtom to hear them twice before they delivered them to puniſhment. If the accuſed, whoſe crime was proved, had recourſe to voluntary baniſhment, all his goods were confiſcated, and ſold by public auction [s]. I have already ſpoken of the cuſtom to clear and acquit the accuſed when the judges were equally divided [t]. Before they would hear the accuſer and the accuſed, they obliged them to depoſite each a ſum of money, which belonged to him who gained the cauſe. The law further condemned the accuſer to pay a fine of a thouſand drachmas, if he had not for him at leaſt the fifth part of the votes [u]. If the accuſation was proved,

[m] L. 5. c. 1. p. 376. l. 8. c. 34. p. 669.

[n] See Plat. de leg. l. 9. p. 930. 931. & 933.; Demoſth. in Ariſtocrat. p. 736.; Pollux. l. 8. c. 10. ſegm. 118.

[o] Demoſth. *loco cit.*

[p] Demoſth. ibid.; Pollux. l. 8. c. 10. ſegm. 117.

[q] Demoſth. Pollux. *locis cit.*

[r] Demoſth. in Ariſtocrat. p. 736.

[s] Pollux. l. 8. c. 9 ſegm. 99. [t] Art. 3.

[u] Demoſth. in Mid. p. 610. F. in Ariſtocrat p. 738. C.; Plato in Apolog. Socrat. p. 27. E; Pollux l. 8. c. 6. ſegm. 41. & 53.

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the laws granted to the accuſer, the ſad privilege of aſſiſting at the puniſhment of the wretch whom he had convicted of a crime [x]; but it very ſeldom happened, that they executed homicides on account of the facility of flying from puniſhment [y]. For beſides their being at liberty to fly, the law had given them a yet more effectual way to diſarm juſtice, and even ſtay unmoleſted in their own country. They had only to find out proper ways of appeaſing the relations of him who had been ſlain: they were then ſure of impunity, and of never being diſturbed; it was by money they commonly ſtifled theſe affairs. They gave a certain ſum to the parties intereſted, to engage them to ceaſe their proſecutions [z].

The law would not have even an involuntary murder be entirely exempt from puniſhment, for fear, ſays Porphyry, that impunity, on theſe occaſions, ſhould give a ſcope to wicked perſons to abuſe the indulgence of the law [a]. Baniſhment was originally the puniſhment for involuntary murder with the Greeks [b]. Cephalus was condemned by the Areopagus to perpetual baniſhment for having involuntarily killed his wife Procris [c]. The laws in time abated a little of this rigour. We ſee in Homer, that, at the time of the war of Troy, murderers were not obliged to leave their country, but till they could appeaſe the parents of him they had ſlain [d]. According to the report even of the ſcholiaſt on Euripides, accidental murderers were only obliged to abſent themſelves for a year [e]. Plato, in his laws, ſeems to have conformed to this ancient uſage [f].

But at the ſame time that the laws ſubjected to ſome puniſhment an involuntary murder, they had taken precautions to protect the murderer from the ſudden vengeance the relations of the deceaſed might take for his loſs. It is for this reaſon that we ſee aſylums eſtabliſhed among all the people of antiquity. This privilege, attached to cer-

[x] Demoſth. in Ariſtocrat. p. 736. [y] See Diod. l. 3. p. 177.
[z] Iliad. l. 9. v. 628. *&c.* [a] De abſtin. l. 1. p. 16. &c.
[b] Apollod. l. 2. p. 116.; Demoſth. adv. Ariſtocrat. p. 732. B.; Plut. t. 2. p. 299. C.
[c] Apollod. l. 3. p. 200. [d] See Feithius, Antiq. Hom. l. 2. c. 8. p. 187.
[e] In Hippolyt. v. 35. [f] L. 9. p. 929. F. p. 930. D.

tain places, to ſhelter the murderers from all purſuits, was very ancient and much reſpected by the Greeks. They believed that the aſylum of Samothrace was eſtabliſhed by Cybele [g]. One of the moſt ancient is that which Cadmus opened in Beotia [h].

The place where the Areopagus aſſembled, was an inviolable aſylum. Under Aphidas, who aſcended the throne of Athens 1162 years before Chriſt, the oracle of Dodona forewarned the Athenians, that one day the Lacedæmonians being beaten would fly for refuge to the Areopagus, and that they ſhould take care not to treat them ill. The Athenians remembered this advice, when in the reign of Codrus, Peloponneſus leagued againſt Attica. We know what was the event of that war, and how the armies being in ſight of each other, that of the enemy thought of making a retreat [i]. Some Lacedæmonians who were advanced to the gates of Athens, on this news found themſelves in a cruel dilemma. All that they could do was to endeavour, under favour of the night, to hide themſelves from the ſight of the Athenians. When day appeared, they ſaved themſelves in the Areopagus. They durſt not attack them in that aſylum, they were reſpected, and got leave to return ſafe and ſound to their country [k].

The favour of aſylums was originally eſtabliſhed only for involuntary murderers. In Thucydides the Athenians tell us very clearly, that the altars of the gods are not an aſylum but to thoſe who have had the misfortune to commit an involuntary murder [l]. We likewiſe ſee in Livy the murderer of King Eumenes obliged to abandon the aſylum of the temple of Samothrace, as unworthy to enjoy it [m]. Moſes, on eſtabliſhing cities of refuge for involuntary murderers, formally excludes aſſaſſins from that privilege [n].

For the reſt, it was the ſame among the Greeks with involuntary murders as with premeditated homicides, that is to ſay, that the involuntary murderers could, by ſatisfying

[g] Diod. l. 3. p. 224. [h] Art. 4. [i] Art. 1. [k] Pauſ. l. 7. c. 25. *init.*
[l] L. 4. p. 276. line 92. [m] L. 45. n. 5. [n] Deut. c. 19. v. 11. &c.

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the intereſted parties, remain quiet in their own country. It was likewiſe cuſtomary to give to the relations of the deceaſed a certain ſum [o]. This policy ſprung from a very wiſe principle. Among people little diſciplined, enmities are dangerous, and moſt ſubject to occaſion diſagreeable conſequences; it is therefore for the good of the public that they be eaſy to determine [p]. Thus we ſee among the ancient people, they had no crime from which they could not redeem themſelves with money. Every thing was reduced to damages and reparations. For this reaſon they had not then, as at this time with us, any public officers charged with the care of the purſuit of criminals. The ſavages of America ſhow us again the image of theſe times. With theſe people, the reparation of murder conſiſts in a certain number of preſents which the murderer is obliged to make to the relations of the deceaſed, to appeaſe their reſentment [q].

Ancient legiſlators have omitted nothing to inſpire their people with all the horror poſſible of murder, and ſhedding of blood. They looked upon thoſe who had committed homicide as polluted, in whatever way it happened; and they ought, before they came again into ſociety, to purify themſelves by certain religious ceremonies. Theſeus had done an important ſervice to his country, by putting to death the robbers who infeſted it. Although theſe murders were very lawful, yet his firſt care was to have himſelf purified [r]. Homer makes Hector ſay, coming from battle, that he durſt not make libations to Jupiter, before he was purified, becauſe it was not permitted to pray with hands imbrued in blood [s]. Æneas, in Virgil, after having put many of his enemies to death, durſt not touch his houſehold gods till he was purified [t]. We might quote many more exam-

[o] Iliad. l. 18. v. 498. &c. [p] See l'eſprit des loix, t. 3. p. 102. & 328.
[q] Leſcarbot, hiſt. de la Nouv. France, p. 395. & 798.; Meurs des ſauvag. t. 1. p. 490. 491.
[r] Plut. in Theſ. p. 5. C.; Pauſ. l. 1. c. 37. *init.*
[s] Iliad. l. 6. v. 265. &c. [t] Æneid. l. 2. v. 717. &c.

ples[a]. A murderer who was baniſhed his country for an involuntary homicide, was not permitted to return, though he had ſatisfied the relations of the deceaſed, before he was purified and had expiated the murder he had committed[x]. They aſcribe to the reign of Pandion, the eighth King of Athens, the eſtabliſhment of religious ceremonies, proper to purify homicides[y].

We ſhall remark on this ſubject, that Moſes ordained a ſolemn expiation for the murders of which they did not know the authors[z]. He ordains likewiſe that thoſe who, in a juſt and legitimate war, had ſtained themſelves by the effuſion of the blood of the enemy, ſhould not enter the camp, before they were purified[a]. With the Romans, the ſoldiers who followed the chariot of the conqueror, were crowned with laurel; to the end, ſays Feſtus, that they ſhould not appear to enter the city, but when purified from the human blood which they had ſpilt[b]. The end of all theſe cuſtoms, was to inſpire the greateſt averſion for homicide.

We muſt, I believe, aſcribe to the ſame principle of humanity, as well as policy, the prohibition of killing certain animals, ſo preciſely ſettled by the firſt legiſlators of Greece. We have ſeen that Cecrops had forbidden to offer any thing that had life to the gods[c]. Triptolemus renewed that law, by ordering them to offer nothing but fruits[d]. But this ſecond legiſlator went much farther; for he expreſsly forbids uſing ill the animals employed in tillage[e]. Hiſtory has not diſdained to preſerve the circumſtances which occaſioned the death of the firſt ox, killed at Athens, and the conſequence of that event[f]. This is one of thoſe ſingular facts which merit a particular attention: it happened under Erechtheus, ſixth King of A-

[a] See Marin. p. 254.; Feithius, p. 187.
[x] Demoſth. in Ariſtocrat. p. 736. E. See alſo Plat. de leg. l. 9. p. 930. &c.
[y] Marm. Oxon. ep. 15.; Marſh. p. 253.
[z] Deut. c. 21. v. 5. &c. [a] Numb. c. 31. v. 19. & 24.
[b] Verbo *laureati*, p. 206. [c] Art. 1. [d] Ibid. 8. [e] Ibid.
[f] Porphyr. de abſtin. l. 2. p. 136. & 174.; Ælian. var. hiſt. l. 8. c. 3.; Pauſ. l. 1. c. 28. p. 70.

thens

thens[g]. This event was ſo much the more remarkable, as it gave riſe to the erection of the Prytaneum, a moſt renowned tribunal among the Athenians[h]. The buſineſs of the Prytanes was to commence proceſſes againſt things inanimate, which had occaſioned the death of any one[i].

I finiſh what concerns the penal laws of Greece, by obſerving a perfect conformity between theſe laws and thoſe of the Egyptians, in the puniſhment of pregnant women guilty of crimes deſerving death: the Greeks, after the example of the Egyptians, waited to bring them to puniſhment, till they were delivered[k].

What I find the moſt extraordinary in the ancient laws of Greece, is, that the legiſlators had not determined preciſely the nature and duration of the puniſhment with which each crime ought to be puniſhed[l]. They left it to the judges to apply the laws as they thought proper. Zaleucus, legiſlator of the Locrians, was, ſay they, the firſt who preſcribed and explained in his laws the kinds and duration of puniſhments which they ought to inflict on criminals[m].

We ſee, from what has been ſaid, that the firſt laws of Greece were very ſhapeleſs; they ſavoured of the rudeneſs which reigned ſo long in that part of Europe[n].

The Greeks, like all the ancient people, were ſome time before they knew the art of writing. Singing was then the only way to hand down to poſterity what was neceſſary to be remembered[o]. This moſt ſimple and moſt natural method had been uſed to preſerve the remembrance of the laws. For want of monuments, where they could depoſite their laws, the firſt legiſlators ſet them to muſic, to make them be retained the more eaſily. The Greeks ſung their laws. This is what made the ſame name be given to laws as to ſongs[p]. Ariſtotle, in his problems, inquiring into

[g] Pauſ. l. 1. c. 28. p. 70. [h] Ibid. *loco cit.*; Pollux. l. 8. c. 10.
[i] Pauſ. l. 1. c. 28. p. 70. See the examples which he cites, l. 5. c. 27. p. 449. l. 6. c. 11. p. 478.
[k] Diod. l. 1. p. 88.; Ælian. var. hiſt. l. 5. c. 18.; Plut. t. 2. p. 552. D.
[l] Strabo, l. 6. p. 398. [m] Ibid.
[n] Ariſt. polit. l. 2. c. 8. p. 327. B. [o] See part 1. book 1.
[p] Νόμοι.

the

the reaſon of this conformity of names between two ſuch different objects, it is, ſays he, that before the knowledge of writing, they ſung the laws, leſt they ſhould forget them [q].

The cuſtom of putting the laws, and all that had relation to them, into ſong, prevailed ſo much in Greece, that it even continued after writing was introduced. The crier, who publiſhed the laws in moſt of the Greek cities, was ſubjected to regulated tones, and a meaſured declamation. He was accompanied by the ſound of a lyre, like an actor upon the ſtage [r]. This manner of publiſhing the laws, the edicts, *&c.* had ſubſiſted a long time among the Greeks. Hiſtory has preſerved one example too remarkable to be omitted.

On the night which followed the battle of Cheronea, Philip, intoxicated with good cheer and wine, and ſtill more with the victory he had gained, went to the field of battle, yet covered with the dead bodies of the Athenians; where, to inſult the dead, he parodied the decree which Demoſthenes had propoſed to excite the Greeks to take up arms. Philip ſung then, beating time: "Demoſthenes, "ſon of Demoſthenes the Pæonian, has ſaid, *&c.* [s]"

The Locrians of Italy were looked upon, in the writings of ſome authors of antiquity, for the firſt Grecians who had reduced their laws to writing [t]. But this fact does not appear to me to be exact; for, without ſpeaking of

[q] Problem. ſect. 19. problem. 28. Joſephus and Plutarch ſuſpect that the term νόμος, uſed to deſign laws, was modern, in compariſon of the early times we are now ſpeaking of; and that it was even later than the age of Homer, who, in his poems, never uſes the word νόμος to ſignify laws, but θεμιστὰ, *jura*.

But Joſephus and Plutarch, eſpecially ſpeaking dubiouſly, ought not to balance the authority of Ariſtotle about the antiquity of a Greek word; to ſay nothing of an hymn in honour of Apollo, attributed to Homer, where νόμος is uſed to ſignify law, or the method of ſinging, v. 20.

We likewiſe find the word νόμος uſed in Heſiod to ſignify *laws*, Op. & dies, v. 276.

[r] Graecarum quippe urbium multae ad lyram leges, decretaque publica recitabant. Martian. Capella de nupt. Philolog. l. 9. p. 313. See alſo Ælian. var. hiſt. l. 2. c. 39.; Stob. ſerm. 42. p. 291.

[s] Plut. in Demoſth. p. 855. A. [t] L. 6. p. 397.

Minos,

Minos, who, by Plato's account, had committed his laws to writing [u]; without ſpeaking of a law of Theſeus, writ on a column of ſtone, which remained even to the time of Demoſthenes [x]; it is certain, that Solon cauſed his laws to be written [y]; and Solon is prior by almoſt a century to Zaleucus, legiſlator of the Locrians. Yet I do not believe, that, at the time we are now ſpeaking of, any people of Greece, except the Cretans, had a body of laws compiled and reduced to writing.

ARTICLE IX.

Of the laws of Crete.

I Had at firſt reſolved not to ſpeak of the Cretans. Theſe iſlanders never joined with the other people of Greece; fixed in their iſle, they ſcarce ever took part in the general affairs, and were not influenced by any event which did intereſt all the Greeks [z]. Yet we ought to look upon the Cretans, as making a part of the Greek nation, ſince they ſpoke the ſame language [a]. Beſides, the laws of Crete of themſelves merit our attention; they were a model for thoſe which Lycurgus afterwards gave to the Lacedæmonians. It is therefore proper to ſpeak of them, that we may remark the conformity there was between the laws of Crete and thoſe of Sparta.

Of all the people of Greece, the Cretans were looked upon as the firſt who had written laws [b]. They were the work of Minos the Firſt [c]. The high reputation of theſe laws, made this prince be ranked with the greateſt legiſlators of antiquity.

The laws of Minos were founded on two principal mo-

[u] In Minoe, p. 568. E.
[x] In Neæram, p. 873. C.
[y] See part 3. book 1. c. 3. art. 1.
[z] Except in the war of Troy, they ſeem never to have concerned themſelves in the affairs of Greece. See Herod. l. 7. n. 167. & 170. 171.
[a] That was the Doric dialect.
[b] Plat. in Min. p. 568. E.; Solinus, c. 11. p. 29.; Iſidor. orig. l. 14. c. 6.
[c] See mem. de l'academ. des inſcript. t. 3. mém. p. 49.

tives,

tives, to form his ſubjects for war, and to promote an union of hearts. If Minos ſucceeded in the firſt of theſe objects, we ſhall ſee, that, with regard to the ſecond, the event did not anſwer his expectations. With a view to eſtabliſh a perfect union among his ſubjects, Minos laboured to make the moſt exact equality among them. For this purpoſe he ordained, that all the children ſhould be fed and brought up together [a]. Their life was auſtere and ſober. They were accuſtomed to be content with a little, to bear heat, cold, and to march over rugged and ſteep places. They were always clothed like ſoldiers, in a plain cloth, the ſame in winter as in ſummer. They were accuſtomed to have little combats with each other, to bear courageouſly the ſtrokes they received; and, to conclude, ſays Strabo, even to their very diverſions, all ſavoured of war, they even danced with arms in their hands [c].

To unite their minds ſtill more, and to bind them more intimately, Minos would have all the citizens eat together at the ſame tables [f]. They were fed at the expenſe of the ſtate: it was paid out of the public treaſury [g]. The young men eat on the ground, and waited on each other. They likewiſe waited on the men [h]. As in the army, the ſoldiers are obliged to eat all together, the intention of Minos, in eſtabliſhing theſe public repaſts, was to form his ſubjects in their infancy to military diſcipline. This is the only good that could ſpring from this cuſtom. The inſtitution of public meals did not ſucceed to maintain union and concord among the Cretans; we know that they were continually at war with each other [i]. They never agreed, but when they went to beat off a common enemy [k]. I

[a] Strabo, l. 10. p. 735. &c.

[c] Ibid. This dance was greatly celebrated in antiquity under the name of Pyrrhic.

[f] Ariſt. polit. l. 7. c. 10.; Strabo, l. 10. p. 736.

[g] Ariſt. ibid. and l. 2. c. 10. p. 332. E.; Strabo, l. 10. p. 736.

[h] Strabo, p. 739. [i] Ariſt. polit. l. 2. c. 10. p. 333.

[k] Plut. t. 2. p. 490. B. It was from this conduct of the Cretans, according to Plutarch, that the proverbial expreſſion came, ſo well known in Greece, to *fyncretiſe*. They have ſince called *fyncretiſtes*, thoſe who undertook to reconcile the different ſects. This word is often uſed by divines, but always in a bad ſenſe.

make

make not the leaſt heſitation to aſcribe theſe inteſtine diviſions of the Cretans to the diſtinction of profeſſions, which had place in Crete as well as in Egypt [l].

We cannot ſufficiently praiſe the attention Minos had with reſpect to magiſtrates and aged perſons. He not only required that they ſhould have for them the reſpect and regard which were their due; but further, leſt they ſhould fail, he forbade, in caſe they ſhould remark any defects in them, to take notice of them before the young men [m]. He alſo uſed all the precautions which human prudence could ſuggeſt, to inſpire the youth with the greateſt reſpect and attachment for the maxims and cuſtoms of the ſtate. The youth were not allowed to call in doubt, nor even to put in diſpute the wiſdom or utility of the rules by which they were inſtructed. This was what Plato found moſt admirable in the laws of Minos [n].

In order to inſpire the Cretans with a moſt profound veneration for his ordinances, Minos often retired into a cave, where he boaſted of having familiar converſations with Jupiter [o]. But indeed he was neither the firſt, nor the only one of the ancient legiſlators, who thought they ought to be authoriſed by ſome divinity to make their laws be reſpected. Mneves, one of the moſt renowned and moſt ancient legiſlators of Egypt, attributed his to Hermes, otherwiſe called Mercury [p]. Lycurgus took care to avail himſelf of the ſuffrage of Apollo, before he began the reformation of Sparta [q]. Zaleucus, legiſlator of the Locrians, ſaid he was inſpired by Minerva [r]. Zathrauſtes, among the Arimaſpes, declared that he had his ordinances from a genius adored by theſe people [s]. Zamolxis boaſted to the Getes his intimate communications with the goddeſs Veſta [t]. Numa amuſed the Romans with his converſations with the nymph

[l] Ariſt. polit. l. 7. c. 10. See upon this article part 3. book. . c. 2.
[m] Plato de leg. l. 1. p. 775. [n] Ibid.
[o] Hom. Odyſſ l. 19. v. 179.; Plato *in* Minoe, p. 568.; Horat. carm. l. 3. od. 28.; Diod. l. 1. p. 105.; Strabo, l. 16. p. 1105.; Val. Max. l. 1. c. 2. p. 37.; Plut. *in* Numa, p. 62. D.
[p] Diod. l. 1. p. 105.
[q] Ibid. *loco cit.*; Strabo, l. 16. p. 1105.; Plut. t. 2. p. 543. A.; Val. Max. l. 1. c. 2. p. 38.
[r] Diod. l. 1. p. 105.; Val. Max. l. 1. c. 2. p. 38.; Plut. in Numa, p. 62. D.
[s] Diod. *loco cit.* [t] Ibid.; Strabo. l. 16. p. 1106.

Egeria [u]. We might quote many more examples. These facts, juſt to mention them, invincibly demonſtrate that the primordial tradition of the exiſtence of God was never loſt, ſince, in all the known world, this belief was eſtabliſhed time immemorial, and that ſo deeply, that the firſt legiſlators would avail themſelves of it, to give to their laws a reputation more than human [x].

The grand defect of Minos, in his political inſtitutions, a defect into which Lycurgus fell after him, was not to have regarded any thing but war. This was the only end which the Cretan legiſlator ſeems to have propoſed [y]. We have ſeen that it was ſolely by this motive that he was directed in the education of the youth. By a conſequence of the ſame motive, the Cretans did not cultivate their lands themſelves. Slaves known in antiquity by the name of *Periœcians*, were charged with this buſineſs. They were obliged every year to pay a certain ſum to their maſters [z], from which were firſt levied the ſums neceſſary for the exigences of the ſtate [a].

If the laws of Minos were good to make the Cretans excellent ſoldiers, they do not appear to have been equally proper to regulate their manners and their ſentiments. Each citizen was obliged to marry [b]: but with what aſtoniſhment ſhall we not look on a legiſlator who could approve of a means ſo infamous as that which the Cretans made uſe of, leſt they ſhould have too many children? Whether in Crete the fertility or extent of the lands did not anſwer to the number of inhabitants, or that their bodies were more robuſt, or the women were more fruitful, Minos authoriſed, by his laws, a paſſion which nature diſavows, and permitted an exceſs which modeſty never mentions but with horror [c].

[u] Plut. in Numa. p. 62. D.; Dion. Halic. l. 2. p. 122.; Val. Max. l. 1. c. 2.

[x] See Diod. l. 1. p. 105.; Strabo, l. 16. p. 1105. 1106.; Plut. in Numa, p. 62.; Dion. Halicarn. l. 2. p. 122. and the tract of opinion, t. 4. p. 513.

[y] Plato, de leg. l. 1. p. 769. &c.

[z] Ariſt. polit. l. 2. c. 10.; Strabo, l. 12. p. 817.; Plut. in Lacon. p. 239.; Athen. l. 6. p. 263. & 264.

[a] Ariſt. *loco cit.* [b] Strabo, l. 10. p. 739. A.

[c] Ariſt. l. 2. c. 10. p. 333.; Strabo, l. 10. p. 739. & 740. Athen. l. 13. p. 602.; See alſo the manner in which they puniſhed adultery in Crete. *Ælian var. hiſt. l. 12. c. 12*

BOOK

BOOK II.

Of Arts and Manufactures.

I Have endeavoured in the firſt part of this work to give an idea of the origin and diſcovery of the arts. I ſhould have liked to have been able to have followed them from age to age, and fixed the degree of perfection, to which they were carried in each century. The deficiency of monuments has not permitted me to execute this project. We ſee only through the obſcurity which ſurrounds the hiſtory of the people of Aſia and that of the Egyptians, that theſe people knew very early many arts, and that their firſt progreſs was very rapid. We really find, a few ages after the deluge, the Egyptians, and ſome countries of Aſia, in poſſeſſion of many of the ſciences which are the portion of policed people. The relation which I am going to make of the works executed by theſe nations, in the times which at preſent fix our attention, will be ſufficient to convince us.

With reſpect to the Greeks, their knowledge in the arts was then very different from thoſe of the people of Aſia and the Egyptians. They were only, at the time we ſpeak of at preſent, in their firſt elements. Greece languiſhed many ages in ignorance and barbarity.

SECTION I.

Of the ſtate of Arts in Aſia and Egypt.

I Have thought fit to put in one and the ſame ſection, what I have to ſay in this ſecond part of the ſtate of arts in Aſia and Egypt. The people of theſe countries ſeem to have advanced almoſt equally in the career of human knowledge. Their taſte appears to have been almoſt the ſame; I will not therefore make ſeparate articles for Aſia and Egypt.

CHAP. I.

Of Agriculture.

THE hiſtory of the people of Aſia, in the ages which are the object of this ſecond part, furniſh us with nothing in particular of the ſtate of agriculture properly ſo called. I think we can only perceive ſome traces which give room to think, that the art of gardening was then much cultivated in ſome countries of that part of the world. The Syrians are ſaid to have underſtood gardening perfectly [d], a proof that they had applied themſelves to it a long time. We might ſay as much of the Phrygians. The gardens of Midas were very famous in antiquity; but there now remains no deſcription of them.

Herodotus, who ſpeaks of them, contents himſelf with ſaying, that there grew roſes of a great ſize and admirable ſmell [e]. Homer will give us more lights on this ſubject. The deſcription of the gardens of Alcinous will let us know what was the taſte of the people of Aſia, in this part of agriculture. The reader will perhaps be aſtoniſhed at the relation which I eſtabliſh between Aſia and the iſle of the Phæacians; but I think it ſufficiently authoriſed *.

Homer

[d] Plin. l. 20. ſect. 16. p. 192.

[e] l. 8. n. 138.

* To this time they have always taken the iſle of Corfu for the iſle of the Phæacians, ſo famous in the poems of Homer. Yet I do not know if the reaſons on which they found it are abſolutely deciſive. I think, on the contrary, facts may be found in the text of Homer, which will not ſuffer us to place the iſle of the Phæacians in Europe.

The ſole motive on which they eſtabliſh the identity of the iſle of the Phæacians with that of Corfu, is its nearneſs to Ithaca. It is not difficult to deſtroy this conjecture, and to ſhew it is ſupported on very weak foundations.

Homer has ſown too many fables and put too many contradictions in the voyages of Ulyſſes, for its being poſſible to determine with any ſort of certainty, the countries where he would make his hero land. Geographic exactneſs was not the end the poet propoſed in the Odyſſee. Every moment he diſplaces countries, and makes his routes, juſt as he thinks proper. In vain would we endeavour to find moſt of the countries he ſpeaks of; the trial would be fruitleſs. I ſhall mention, for example, the iſle of Oea, where

Homer is the moſt ancient author who has ſpoken expreſsly of gardens, and who took pleaſure in deſcribing them. His works then can inſtruct us in the ſpecies of trees and plants which were known and cultivated in theſe earlieſt times. We likewiſe find there the manner in which their gardens were diſpoſed.

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where the poet places the abode of Circe. Geographers pretend that it is the promontory Circei, ſituated on the weſtern coaſt of Italy. But what reſemblance can one find between the iſle of Oea of Homer and the promontory Circei?

1. Homer ſays plainly that Circe lived in an iſle, and not upon a promontory. 2. There never was a city of Oea in Italy. 3. Homer ſays the iſle of Circe was ſituated in the ocean. We are not ignorant how far the promontory Circei is diſtant from it. Laſtly, How can one reconcile the poſition of this promontory, ſituated on the weſtern coaſt of Italy, with the dancing of Aurora which Homer places in the iſle of Oea, where he ſays moreover, ſhe ſaw the ſun riſe? Odyſſ. l. 12. *init.*

I know very well that Strabo, and thoſe who defend the geography of the Odyſſee, have endeavoured to reconcile, by the help of an ancient tradition, the contradictions I mention. But we ſee that they are every moment obliged to do violence to the moſt common notions of geography. They are obliged to overturn all the ideas we can have of it.

But, ſay they, the iſle of the Phaeacians cannot be far from Ithaca, ſince Ulyſſes was only one day in going to it.

To draw any induction from this reaſoning, we ſhould be aſſured that Homer never loſes probability on this ſubject. Yet we ſee that when Ulyſſes parts from Circe to go to Hell, the poet makes him croſs the ocean in one day. With regard to his croſſing from the iſle of the Phaeacians to Ithaca, the marvellous which Homer has ſpread over all that recital, does not permit us to infer any thing as to the diſtance of places. He explains it clearly enough, ſince he ſays, that it was not with the veſſels of the Phaeacians as with thoſe of other nations. Theſe ſhips, ſays he, have neither rudder nor pilot. They are endowed with knowledge. They of themſelves know the way to all cities and to all countries; they very ſoon make the longeſt voyages. Odyſſ. l. 8. v. 556. &c.

I think this paſſage ſufficiently deſtroys all the inductions which they pretend to draw from the proximity of the iſle of Corfu to that of Ithaca. Beſides, they do not find any conformity, any relation between the name of *Scherie*, which Homer gives to the iſle of the Phaeacians, and that of Corcyra or Corfu. Let us now ſhew that the ſtate in which the poet ſays the iſle of Phaeacia was when Ulyſſes landed there, does not in any reſpect agree with the ſtate the iſle of Corfu muſt have been in the heroic ages.

Homer deſcribes the iſle of the Phaeacians as a country where there reigned at the time of the war of Troy an opulence, a luxury, and magnificence, certainly at that time unknown in Europe. I do not ſpeak of the palace of Alcinous, although Homer ſeems to have exhauſted himſelf to give us the higheſt idea of it. But I ſhall inſiſt on the grandeur and decoration of the public ſquares, on that of their ports, on the beauty and number of their ſhips

This poet ſays that they had in the gardens of Alcinous pear-trees, pomegranates, figs, and olives. And there is even room to ſuſpect that they had citron-trees [r]. As to pulſe and roots, Homer enters into no detail on this article; only one may conjecture that they had many ſorts [s].

As to the diſtribution and arrangement of theſe gardens, we ſee that they had a ſort of ſymmetry. They were divided into three parts: an orchard, containing the fruit-trees, a vineyard, and kitchen-garden. The trees do not ſeem to have been planted confuſedly in the orchard. It appears on the contrary, that they then knew the art of planting by the line *. The vineyard might likewiſe form an arbour. As to the kitchen-garden, Homer, as I imagine, gives us to underſtand, that the pulſe and roots were ranged in different beds or compartments †. They knew likewiſe how to conduct and diſtribute running waters in their gardens. Homer remarks, that in thoſe of Alcinous they had

ſhips with which they were filled, in a word, of the experience of the Phaeacians in maritime affairs, and of the extent of their commerce. I ſhall ſupport it by the ingenuity and addreſs of the Phaeacians in making ſtuffs of a ſurpriſing fineneſs and beauty. I ſay that all this deſcription could not characteriſe an iſle in Europe in the heroic times; and to convince us of this, it is ſufficient to caſt our eyes on the ſtate in which the arts, commerce, and navigation were at that time in Greece. I believe, on the contrary, that from thence we may trace the features of the Aſiatics. 'Tis to theſe people we ought to aſcribe all that Homer ſays of the Phaeacians; and I do not imagine he had any other views. The poet was too knowing to be ignorant, that, at the time of Ulyſſes, there was no iſle in Greece in a ſtate like that in which he has painted the iſle of the Phaeacians. I do not think then that all theſe conjectures, to which they are obliged to have recourſe to place this iſle in Europe, can outdo the text of Homer, which to me appears plainly to prove that the poet deſigned ſome Greek colony tranſported into ſome one of the iſles of Aſia.

[r] Odyſſ. l. 7. v. 115. &c.

Μηλέαι ἀγλαόκαρποι, literally, fruits glittering to ſight. Which one may well interpret oranges, or citrons.

[s] Ibid. v. 127. & 128.

* I found my conjecture on this, becauſe Homer uſes the word ὄρχατος, rather than that of κῆπος, in ſpeaking of the gardens of Alcinous. Now, the word ὄρχατος comes from the root ὄρχος, which ſignifies plants ranged with order and ſymmetry.

† This, I think, is the induction we ought to infer from the terms κοσμηταὶ πρασιαὶ, which Homer uſes: his ſcholiaſt explains them, and I think with great judgment, by ἐν τάξει διατεθειμέναι, of plants ranged in order.

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two fountains: one dividing itſelf into different canals, watered all the garden: the other running along the walls of the court, came out at the end of the palace, and ſupplied the whole city with water [h].

Yet we muſt agree, that this deſcription does not give us a grand idea of the taſte which then reigned in gardens. Thoſe of Alcinous, to ſpeak properly, were only incloſures or orchards. We ſee nothing but fruit-trees or uſeful plants. No mention of elm, of beech, of plane, nor of any other trees, which in ſucceeding times have made the ornament and beauty of gardens. No covered walks, no groves, no terraſſes. There is nothing ſaid of flowers, ſtill leſs of parterres. In a word, there is nothing in this deſcription which gives any idea of what one may call the deſign and arrangement of a garden.

A more important point is to examine what knowledge they then had of the culture of trees. It is certain, that the art of planting them where they pleaſed, was very well known; but were they equally inſtructed in the art of managing them, to graft, for example? on this I have already had an opportunity of propoſing ſome conjectures [i]. I maintain that this ſecret was not known till late: let us give the motives which made me embrace this opinion.

There is no mention made of grafting in the writings of Moſes. Yet we ſee this legiſlator gives to the Iſraelites very uſeful precepts for the culture of fruit-trees. He orders them to pull off the fruit from the trees they have planted for the firſt three years. Thoſe of the fourth muſt be conſecrated to the Lord. They were not therefore permitted to eat them till the fifth year [k]. This precept was founded on the experience and knowledge which Moſes had of the culture of fruit-trees. He was not ignorant that it weakens and exhauſts a young tree when you ſuffer it to bring to maturity the fruit it produces at its firſt effort: thus in ordering the Iſraelites to pull off the fruit the firſt three years, the inten-

[h] Odyſſ. l. 7. v. 129. *&c.*
[i] See part 1. book 2. chap. 1. art. 5.
[k] Levit. c. 19. v. 23. *&c.*

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tion of Moſes has been to teach his people the means of preſerving their fruit-trees, and to make them bear good fruit.

After theſe details, I think we have a right to preſume, that if Moſes had known how to graft, he would not have neglected to have given ſome precept to the Hebrews.

We ſee likewiſe, that Homer ſays nothing of grafting, although he had occaſion to ſpeak of it many times.

One may add, that there is no mention of graſting in the poems of Heſiod that now remain *; notwithſtanding his firſt work, where he treats ſo particularly of all that concerns agriculture, is come to us ſo entire. But the induction which we might draw from the ſilence of Heſiod, will not be equally concluſive. Firſt, it is certain, that all the writings of this poet are not come down to us [l]. And ſecondly, we find in Manilius a paſſage that gives us to underſtand, that Heſiod had ſpoke of grafting in ſome of his works [m]. I will not therefore avail myſelf of the writings of this poet to deny the antiquity of this diſcovery. But allowing, that this ſecret might be known to Heſiod, we can conclude nothing for the times of which I ſpeak. This poet is much later than the epocha we are now employed about.

* One might bring authority from ver. 731. *Oper. & Dier.* to maintain, that the art of grafting was not unknown to Heſiod. But beſides that the moſt able critics look upon the common reading as vitious, and ſubſtitute ἐκρι̃ψασθαι for ἐντρι̃ψασθαι which we read in the editions, it would be very ſingular to ſee the verb ἐντρίβειν become ſynonymous to ἐμφύειν; a term conſecrated to ſignify the operation of grafting.

[l] See Fabric. bibli. Græc. t. 1. p. 379.

[m] Atque arbuſta vagis eſſent quod adultera pomis. l. 2. v. 22.

It is certain, that by this expreſſion Manilius meant grafting. Pliny uſes the ſame term in ſpeaking of ſcions or grafts. Ob hoc inſita & arborum quoque adulteriâ excogitata ſunt. l. 17. ſect. 1.

Yet there is in all this a conſiderable difficulty, in ſo far, that Manilius attributes in this whole paſſage many things to Heſiod, which are not found in his works, or even what is contrary to what we find there. Scaliger thinks, that Manilius has confounded the poems which paſs for Orpheus's with thoſe of Heſiod. He even brings on this occaſion nine verſes of the beginning of one of theſe pretended poems which bears the ſame title with that of Heſiod called ἔργα καὶ ἡμέραι. In Manil. p. 102. & 103. We ſhould remember, that all the poems attributed to Orpheus are ſuppoſititious, ſo that authority concludes nothing for the antiquity of grafts.

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This is all that the hiſtory of Aſia affords for this time with reſpect to agriculture.

As to the Egyptians, the reign of Seſoſtris ought to be looked upon as the moſt remarkable epocha for the attention of theſe people to try every thing that could contribute to increaſe the value of their grounds.

The reader will not have forgot, that from the firſt ages the Egyptian monarchs applied themſelves to draw great advantages from the overflowings of the Nile. They had made and preſerved divers canals to receive and diſperſe at pleaſure the waters of the river [n]. Seſoſtris augmented the number conſiderably [o]. We muſt attribute to theſe works, the prodigious fertility which hiſtorians ſay Egypt anciently enjoyed. By means of multiplied canals, they carried the water over all the lands. Each inhabitant could procure it eaſily. They had only the trouble of opening a trench each time they wanted water. Thus Egypt found itſelf watered in the parts the moſt remote from the Nile [p].

The extreme fertility which this country anciently enjoyed, is ſo generally atteſted, that we ought to put this fact among thoſe which cannot be doubted. In the moſt remote ages Egypt was able to give to other people a certain aſſiſtance in times of ſcarcity [q]. Under the Roman Emperors they called it the granary of Italy [r]. It was the ſame under the Greek Emperors. They drew from Alexandria all the corn they conſumed at Conſtantinople [s]. Yet theſe facts ſo certain and well atteſted, however, form a problem which it is not eaſy to reſolve.

Egypt is a country of ſmall extent. All the grounds could never produce the ſame quantity, even in the beſt of times: laſtly, they muſt always have left in the country the quantity of corn neceſſary to ſupport the inhabitants; and that quantity muſt formerly have been very conſiderable, conſidering that Egypt was then extraordinarily peopled. How

[n] See part 1. book 2. chap. 1.

[o] Herod. l. 2. n. 108 & 109.; Diod. l. 1. p. 66.; Strabo, l. 17. p. 1156 & 1157.

[p] Herod. l. 2. n. 19. & 108. [q] See part 1. book 2. chap. 1.

[r] Biblioth. anc. & mod. t. 4. p. 123. [s] Ibid. t. 11. p. 215.

can we perſuade ourſelves after theſe reflections, that ſuch a country could ever furniſh ſuch immenſe proviſions as the ancients mention? The queſtion becomes yet more difficult to decide, when we compare the recitals of different authors as well ancient as modern, and when we form, from their recitals, an exact idea of the fertility of Egypt.

Pliny compares the ſoil of Egypt to that of the Leontines, looked upon formerly as one of the moſt fertile diſtricts of Sicily. He pretends, that in that country the buſhel of corn gave an hundred for one [t]. But if we give credit to the teſtimony of Cicero, nothing is more exaggerated than this fact advanced by Pliny. Cicero ſays in plain terms, that in the territory of the Leontines, the higheſt produce was ten for one, and that very ſeldom. Commonly it was not above eight, and they found themſelves then well done to [u]. The orator from whom we have this account ought to have been well inſtructed. He had been queſtor in Sicily; beſides, he pleaded before the Roman people the cauſe of the inhabitants of that province againſt Verres. Thus, on comparing, after Pliny, the fertility of Egypt to the territory of the Leontines, we ſhall find, that in Egypt the buſhel did not give above ten for one.

This eſtimation agrees exactly with that which Granger gives us of the fertility of this country, author of an account of Egypt, which, on many accounts, is much to be eſteemed *. He ſays, that the lands the neareſt to the Nile, thoſe on which, at the time of the inundation, the water reſts forty days, do not give, in the beſt years, above ten for one; and with reſpect to lands where the water does not remain above five days, it is much if they get four for one [x].

The ſame traveller pretends, that they ſow now as much land in Egypt, as they ſowed anciently; leaving none

[t] L. 18. ſect. 21. p. 111. [u] In Verrem, actio 2 l. 3. n. 47. t. 4. p. 304.

* The greateſt part of this work has been reviewed and corrected by M. Pignon, who had been ſeventeen years conſul at Cairo.

I had this from himſelf.

[x] Voyage en Egypte par le Sieur Granger, p. 8. & 9. See alſo Maillet, deſcript. de l'Egypte, lettr. 9. p. 4. & 5.

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unbroke up that will bear corn. Yet, adds he, if the inhabitants, which at preſent are few in compariſon of what they were ſaid to be formerly, eat commonly wheat bread; Egypt, with its great crops, would ſcarce produce what would ſupport them [y].

He obſerves, laſtly, that the ſoil of Egypt is ſo barren, that it is very uncommon to meet with plants or ſhrubs: the earth is clayey and of a dark colour. It is nothing, to ſpeak properly, but a compoſition of ſalt and duſt [z]. The ſeeds and the trees which they plant, do not increaſe or ſhoot but by the force of water. It is for this reaſon, that in Egypt they have neither wood for firing nor building [a]. With reſpect to the overflowings of the Nile, it is, ſays he, an error, to believe that the waters of that river, at the time of its waxing, bring with it a mud that enriches the lands. When the Nile is at eighteen feet high, it comes to the reddiſh earth of which its borders are compoſed, in the higher Egypt. The water being rapid, molders and carries away its borders, and ſtains it of a colour which appears about the conſiſtence of milk [b]; but it brings no mud properly ſo called *.

Granger concludes from all theſe obſervations, that Egypt, ſo far from having ſupplied other countries with proviſions, was not in a ſtate to find a maintenance for the infinite number of inhabitants with which they pretend it was formerly peopled [c].

The other travellers do not ſpeak of Egypt in a way ſo diſadvantageous as Granger. They agree, it is true, as to the aridity of this country [d]; but they do not look upon this defect as an obſtacle to its fruitfulneſs. Among many travellers, whoſe evidence I might bring, I ſhall content

[y] Granger, p. 4. 5. 11. [z] Ibid. p. 12. & 26.
[a] Ibid. p. 12. & 13. [b] Ibid. p. 20.

* He told me, that he was certain, from repeated experiments, that there was nineteen times leſs mud in the waters of the Nile than in thoſe of the Seine. See alſo Shaw's travels, t. 2. p. 183.

[c] Granger, p. 4.

[d] Pietro d'ella Valle, lettr. 11. p. 218.; Maillet, deſcript. de l'Egypte, lettr. 9. p. 3.

myſelf with that of Maillet, who, by the long ſtay he made in Egypt, could acquire an exact knowledge of that country. Egypt, ſays he, to ſpeak properly, is nothing but an huge and ſolid rock. As ſoon as you dig a little in the ground, or you rake in the ſand, you meet with the rock, except in the Delta, which, he thinks, has been formed by the mud of the Nile[e]. Yet Maillet will have it, that you now find a ſoil in Egypt, which, if cultivated, would produce abundantly *: for he is far from thinking, that they ſow at preſent the ſame quantity of land as formerly. Indeed they cultivate as much as the real ſtate of Egypt will permit; but that ſpace is not nearly ſo extenſive as formerly. The bad policy of the Turks is the cauſe of this difference. The government has thought proper to forbid the exportation of corn; therefore they have ſowed no more than the fields bordering on the Nile. For the ſame reaſon they have given over watching and maintaining the banks and the canals with the ſame attention they did formerly[f]. It is not therefore aſtoniſhing, that Egypt does not now produce the ſame quantity of corn it did in ancient times.

This account is very oppoſite to that of M. Granger. The only fact in which theſe two travellers agree, is, that at this time there is no corn exported from Egypt; but for what reaſons, that is what they do not agree in. Let us endeavour to propoſe ſome conjectures on a queſtion at this time ſo difficult to determine.

It is very certain, that, for want of care and atention,

[e] Deſcript. de l'Egypte, lettr. 1. p. 18. & 19.

* Maillet does not ſeem to have much agreement with himſelf. In his ninth letter, p. 4. & 5. he ſays, that, at preſent, in Egypt, the lands produce commonly ten for one: and he adds afterwards, that a grain of wheat commonly produces from twenty-five to thirty ears. This ſecond fact contradicts the former, and the contradiction is manifeſt. There is certainly an error in one or other of the calculations. For, according to the laſt account, the lands in Egypt ſhould produce at this time at leaſt three hundred for one. But as M. Maillet did not digeſt and publiſh his memoirs, we do not know whether to impute to him or his editor, the contradictions we ſo frequently meet with in this work.

[f] Maillet, lettr. 1. p. 30. & 31. lettr. 9. p. 2.

a great part of the canals, which ſerved heretofore to fertilize Egypt, are filled up. The Romans afterwards knew well their importance. They were very attentive to have them cleanſed [g]. The Mahometans have neglected to keep up theſe works. We ought not therefore to ſay, that they produce as much now as they ſowed formerly, ſince the Nile no longer waters the ſame quantity. But allowing a very great difference between the actual ſtate of Egypt and its ancient ſtate, I am always ſurpriſed that that country could ever be ſaid to have furniſhed ſuch immenſe quantities of proviſions as hiſtorians mention. We cannot juſtify their accounts, but by comparing the ancient produce of Egypt with that of certain diſtricts whoſe fertility is ſo very extraordinary. Herodotus affirms, that in Babylon, the ground produced two, and ſometimes three hundred to one [h]. They bring every year a prodigious quantity of corn from Chili, a country extremely barren, and where we do not ſee lands in tillage but only in ſome valleys. But theſe lands produce ſixty, eighty, and an hundred for one [i], while our beſt lands in France do not produce above ten or twelve to one at moſt [k]. Thus the crop which they have in Chili from one acre, is at leaſt equal to what we have from ten in our provinces the moſt fruitful in corn. The fertility is ſtill greater in ſome provinces of Peru. There they gather from four to five hundred for one of all ſorts of grain [l].

But we are convinced, by many experiments, that one may make the earth bear and yield much more than it commonly does. This ſecret depends on the manner of cultivation and tillage [m]. Can we not then attribute this prodigious fecundity, which the ancients ſay Egypt enjoyed,

[g] See Sueton. in Auguſt. c. 18.; Aurel. Victor epitom. c. 1.

[h] L. 1. n. 193. This is nearly the calculation of Theophraſtus. Hiſt. plant. l. 8. c. 7. p. 162.

[i] Voyage de Frezier, p. 70. & 106.

[k] Journ. des ſcav. Aout, 1750. p. 538.

[l] Voyage de Frezier, p. 137.; Hiſt. des Incas, t. 2. p. 325.; Conqu. du Perou, t. 1. p. 46. & 47.

[m] Mem. de Trev. Juillet 1750. p. 1565. & 1566.

to

to ſome particular method practiſed formerly by the Egyptians? The land of Egypt being no longer cultivated, and that for a long time with the ſame care and induſtry it was in former ages, its fertility cannot have been the ſame. Laſtly, if we believe a celebrated naturaliſt, the earth is exhauſted by length of time [n]. It ſhould not then be ſurpriſing, that Egypt, which was one of the firſt inhabited countries, ſhould now be leſs fertile than heretofore.

Beſides, it is not the only country which has experienced ſuch an alteration. If we believe Pliny, formerly in Lybia, the buſhel of corn yielded one hundred and fifty for one [o]. It muſt be, that things are ſtrangely changed ſince the time of this naturaliſt. At this time, according to the report of Shaw, a moſt exact relater, the buſhel of wheat does not produce in that country above eight or twelve for one. He was told, indeed, that certain diſtricts produce much more; but he aſſures us, at the ſame time, that the crop never comes to an hundred fold [p]. Pliny adds, that they had ſent to Auguſtus a ſtalk of wheat which came from Lybia, which bore more than four hundred blades, all coming from one grain, and fixed to the ſame root. They ſhewed one, almoſt the ſame, to Nero [q]. Shaw ſays alſo, that he has ſeen at Algier a ſtalk of wheat which contained fourſcore ears. He ſpeaks of another which had produced one hundred and twenty [r]. But we muſt obſerve, that there is great difference as to the produce, between one ſeed that grows alone, and thoſe which come up all at once in a ſown field. Experience teaches us, that one ſeed alone, grows and produces an hundred times more [s] than thoſe that are put together in a great quantity in the ſame place. They then ſtarve each other. The ears of which theſe authors ſpeak, had probably grown in

[n] Buffon, hiſt. nat. t. 1. p. 243.
[o] L. 18. ſect. 21. p. 111.
[p] Shaw's travels, t. 1. p. 283. & 286.
[q] Plin. l. 18. ſect. 21. p. 111.
[r] Shaw's travels, t. 1. p. 283. & 286.
[s] Journ. des ſcav. ann. 1681. Janv. p. 11. ann. 1750. Aout. p. 538.; Spectacle de la nature, t. 2. p. 292.; Traité de la cult. des terres, par M. Duhamel, t. 2. p. 20.

ſome

ſome place where they were removed on all ſides from other ſeeds or plants. But as this matter has ſtill great difficulties, I ſhall not undertake to pronounce on all theſe queſtions. I have laid open the facts as I found them in different authors. I leave the deciſion to the judgment of the readers *.

CHAP. II.

Of Cloathing.

OF all the arts of which we have to ſpeak in this ſecond part, there are none which appear to have been more or better cultivated than thoſe which concern cloathing. We ſee taſte and magnificence ſhine equally in the deſcription Moſes gives of the habits of the high prieſt and the vails of the tabernacle. The tiſſue of all theſe works was of linen, goats hair, of wool, and of byſſus [z]. The richeſt colours, gold, embroidery, and precious ſtones, united to embelliſh it. But let us enter on each particular.

ARTICLE I.

Of the colours employed in dying of ſtuffs.

THE art of dying muſt have made a very rapid progreſs in the earlieſt times in ſome countries. Moſes ſpeaks of ſtuffs dyed ſky-blue, purple, and double ſcarlet; he alſo ſpeaks of the ſkins of ſheep dyed orange and violet [a]. Theſe

* I have often had occaſion to diſcourſe of the actual fertility of Egypt with a perſon of credit, who had reſided many years, either at Alexandria, or Cairo: he does not think that Egypt produces near ſo much as it is ſaid to have done formerly; the lands remaining uncultivated in the greateſt part of the Upper Egypt, for want of inhabitants.

[z] On the byſſus, ſee part 1. book 2. chap. 2.

[a] See Exod. c. 25. v. 4. & 5.

different

different colours require very elaborate preparations. My design is not to enter into a particular detail of all the colours which may have been then in use, nor to examine the different operations they used in dying the stuffs. I shall only speak of those which deserve a particular attention. I begin with purple, that colour so valuable, and so famous with the ancients.

It was to chance alone, according to the tradition of all antiquity, that they owed the discovery of this beautiful colour. A shepherd's dog, pressed by hunger, having broken a shell on the sea-shore, the blood which ran from it stained the dog's mouth such a colour as struck the admiration of those that saw it. They endeavoured to apply it to stuffs, and succeeded [x]. There is some variety among the authors in the circumstances of this event. Some place this discovery in the reign of Phœnix second King of Tyre [y], that is to say, a little more than 500 years before Christ *. Others, at the time that Minos the First reigned in Crete [z], about 1439 years before the Christian æra. But the greatest number agree to give the honour to the Tyrian Hercules of the invention of dying stuffs in purple. He gave his first trials to the King of Phœnicia. That prince, they say, was so jealous of the beauty of this new colour, that he forbade the use of it to all his subjects; reserving it for Kings, and the presumptive heir of the crown [a].

Some authors bring love into the discovery of purple. Hercules, say they, being taken with the charms of a nymph called *Tyros*; his dog one day finding on the sea-shore a shell, broke it, and stained his mouth with purple. The nymph observed it: charmed at sight with the beauty of the colour, she declared to her lover, that she would see

[x] Cassiodor. variar. l. 1. ep. 2. p. 4.; Achill. Tat. de Clitophon. & Leucipp. amor. l. 2. p. 87., Palaephat. in chron. Paschal. p. 43. C.

[y] Palaephat. *loco cit.*; Cedren. p. 18. D.

* Phœnix was son of Agenor, and brother of Cadmus. Apollodor. l. 3. 129. Cadmus came into Greece 1519 years before Christ.

[z] Suid. *in voce* Ηρακλῆς, t. 2. p. 73. [a] Autor. supra laudati.

him

him no more till he brought her a ſuit dyed the ſame colour. Hercules thought of a way to ſatisfy his miſtreſs. He got together a great number of ſhells, and ſucceeded to ſtain a robe the colour the nymph had demanded [b].

Such are the different traditions the ancients give out of the origin of purple dye. We perceive very plainly that all theſe recitals are accompanied with fabulous epiſodes. I have nevertheleſs thought proper to relate them, as they may ſerve to fix the epoch of this diſcovery *. I think we may place it about the times I have indicated. We ſee that Moſes made a great uſe of purple ſtuffs †, as well for the habits of the high prieſt, as for the ornaments of the tabernacle. This is a proof that then the art of preparing purple was not abſolutely new; for there muſt have been ſome time to bring this colour to its degree of perfection. They could not attain to that but after many eſſays and trials.

The teſtimony of Homer ſerves ſtill more to confirm the antiquity of this diſcovery. This great poet, an exact obſerver of *cuſtoms*, gives purple ornaments to heroes who lived about the ages [c] where I place the diſcovery of this dye. We might quote more teſtimonies [d].

It is more eaſy to fix the epoch when they began firſt to

[b] Pollux, l. 1. c. 4. p. 30.

Bochart. Hieroz. part. 2. l. 5. c. 11. explains very well this little novel. He ſhews that in the Syriac the ſame word ſignifies a dog and a dyer, from whence the Greeks took occaſion to ſay that it was a dog who had diſcovered purple.

* Palaephat, & Cedren, *locis citat.* were very ill informed when they ſaid, that, before the diſcovery of purple, they were ignorant of dying. The contrary is proved by the Bible. See Gen. chap. 38. v. 27.

† It is not quite certain, according to M. Huet, that the word ארגמן *Argaman*, of the Hebrew text which all the interpreters tranſlate by *purpura*, means in reality that colour. This biſhop obſerves, that *Argaman* comes from ארג *Arag, texuit*, and from מנה *Manah, praeparavit*. It ſhould follow, according to his opinion, that *Argaman* ſhould ſignify rather a ſort of work and a tiſſue, not a colour. Rec. de Tilladet, t. 2. diſſert. 22. p. 255. & 256.

But this reaſoning ought not to deſtroy the common tranſlation, becauſe the word *Argaman* is uſed in the Bible, as the word *purpura* with profane writers, to deſign the robes of Kings.

[c] Iliad. l. 6. v. 219.

[d] See Appollon. Rhod. Argon. l. 1. v. 728. l. 4. v. 424. & 425.

know purple, than to give a clear and preciſe idea of the procedure of the ancients to give to their ſtuffs this ſo much ſought after colour. This is all that remains that one can depend upon on this ſubject.

The purple dye was drawn from many ſorts of ſea-ſhells *. The beſt were found near the iſle where new Tyre was built [c]. They fiſhed for them in other places of the Mediterranean. The coaſts of Africa were famous for the purple of Getulia [f]. The coaſts of Europe ſupplied the purple of Laconia which they had in great eſteem [g]. Pliny ranges in two claſſes all the ſorts of teſtaceous fiſh which ſerved to dye purple; the buccinums, or trumpet-fiſh, and the ſhells called *purples*, from the name of the colour they furniſh [h]. Theſe laſt were particularly ſought after. They found, by the account of the ancients, in the throat of the fiſh, a white vein which contained a dark red colour [i]. This was the ground of purple dye. All the reſt of the ſhell was uſeleſs [k]. The eſſential point was to take theſe fiſhes alive; for the moment of their death they loſt this precious liquor [l]. They collected it carefully. After having left it to macerate in ſalt for three days, they mixed it with a certain quantity of water. They boiled the whole in a leaden pot over a ſlow and moderate fire for ten days. They afterwards put in the wool, being well waſhed, cleanſed, and properly prepared [m]. At firſt they left it to ſoak for five hours; they then took it out, carded it, and put it again into the boil-

* 'Tis for this reaſon that the Latins called purple habits *conchiliatae veſtes*.

[c] Plin. l. 9. ſect. 60. p. 524.

[f] Ibid. l. 5. ſect. 1. p. 242. l. 9. ſect. 60. p. 524.

[g] Ibid. ſect. 60. p. 524. 525.; Pauſan. l. 3. c. 21. p. 294. l. 10. c. 37. p. 893.; Horat. carmin. l. 2. od. 18. v. 8.

[h] l. 9. ſect. 61. p. 525.

[i] Ariſt. hiſt. animal. l. 5. c. 15. p. 844.; Plin. l. 9. ſect. 60. p. 524.

[k] Ariſtotle and Pliny, *locis cit.*; Vitruv. l. 7. c. 13.

Ariſtotle and Pliny obſerve, that it was only in the large ſhells that they took the vein. As to the ſmall ones, they cruſhed them with millſtones. This purple was not in ſuch eſteem as the former.

[l] Ibid. *locis cit.*; Ælian. de animal. l. 7. c. 1.

M. de Juſſieu, in a memoir which we ſhall ſpeak of below, obſerves the ſame thing with reſpect to the fiſh that furniſhes the purple of Panama.

[m] Cicero philoſ. frag. t. 3. p. 424.

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er till all the dye was drank up and consumed [n]. They were obliged to mix different sorts of shells to make purple [o]. They added to it various sorts of ingredients, as nitre, human urine, water, salt, and *fucus*, a sea-plant, of which the best sort is found in abundance on the rocks of the isle of Crete.

The Tyrians, by the confession of all antiquity, succeeded the best in dying stuffs purple. Their operation differed a little from what I have related above. They used nothing to make their colour, but purple shells taken out at sea. They made a bath of the liquor they drew from these fishes. They steeped their wool in this a certain time. They afterwards took it out, and put it into another boiler where there was nothing but buccina or trumpet-fish [q]. This is all that the ancients tell us of the practice of the Tyrians. In Solomon's song there is also mentioned a royal purple which the dyers dipt in the canals, after having tied it in small bundles [r]. We shall give a glimpse in these few words, of some particular preparations, an exact account of which we cannot obtain *.

We know that the purple stuffs the most esteemed were those which were twice dyed. This preparation was very ancient. The purple stuffs which Moses used for the worship of the Almighty, had been dyed twice [s]. It was thus that they made this colour so valuable, that it vied even

[n] Plin. l. 9. sect. 62. p. 526. [o] Id. ibid.

[p] Ibid. *locis cit.* p. 526. sect. 61. p. 527. l. 13, sect. 48. p. 700. l. 26. sect. 66. l. 31. sect. 46. p. 565. l. 32. sect. 22. p. 581.; Plut. t. 2. p. 433. B.; Theophrast. plant. l. 4. c. 7. p. 82. See also Turneb. adversar. l. 9. c. 5.

[q] Plin. l. 9. sect. 62. p. 526.

[r] Chap. 7. v. 5.

* I shall only offer some conjectures.

The best way of washing wools, after they are dyed, is to plunge them in running water. Probably the sacred author had this practice in view, when he said they should dip the royal purple in canals. As to what he adds, after being tied in little bundles, or packets, one may conclude from this circumstance, that instead of making the cloth with white wool, and afterwards putting the whole piece into the dye, as we do now, they then followed another method. They began by dying the wool in skeins, and made it afterwards into purple stuffs.

[s] Exod. ch. 25. v. 4.

with gold itſelf [t]. One ought not to be ſurpriſed at it. The vein of the ſhell-fiſh from whence they got the purple, only furniſhed a very ſmall quantity of liquor. Beſides, it muſt be collected before the death of the fiſh, without reckoning the other preparations which required much time and precaution *, and without mentioning the riſk they ran in fiſhing for theſe ſhells at the bottom of the ſea. I ſhall confine myſelf to this ſhort expoſition of the preparations the ancients made uſe of to dye ſtuffs purple. Thoſe who deſire a more particular account, may conſult the modern authors who have applied themſelves to find out, in the writings of the ancients, all the facts that have any relation to this matter [x].

We find in Ariſtotle and Pliny ſome details of the preparation of purple; but they are not ſufficiently circumſtantial. As Ariſtotle and Pliny writ in the times when this practice was very common, what they have ſaid was then ſufficient to give an idea of it; but it is too little to clear it up to us now, as they have left off the uſe of this dye for many ages. Accordingly, in ſpite of all the writings which have appeared on the ſubject of this operation, it has been long doubted whether we are perfectly inſtructed in the ſpecies of ſhell-fiſhes from which the ancients drew purple [y]; they have even thought this ſecret abſolutely loſt; but yet it is certain it has been found again.

They have diſcovered, as well on the coaſts of England [z], as on thoſe of Poitou [a] and Provence [b], ſhells which have all the characters by which the ancients deſcribe the fiſhes which yielded the purple. We ſee many in the cabinets

[t] See Ariſt. hiſt. animal. l. 5. c. 15. p. 844. A.; Plin. l. 9. ſect. 63. p. 527.; Athen. l. 12. p. 526. D.

* It is very probable that the ancients had ſome ſecret to keep in ſolution in a proper liquor, the blood of purple fiſhes till they wanted to uſe it. See Acad. des ſcienc. for 1736, hiſt. p. 8.

[u] Plin. l. 22. ſect. 3.

[x] See Fabius Columna, and his commentator Daniel Major.

[y] Acad. des ſcien. an. 1711. mem. p. 166. & 167.

[z] Journal des ſcav. Aout 1686. p. 195. &c.

[a] Acad. des ſcien. ann. 1711. mem. p. 168. & 179.

[b] Ibid. ann. 1736. mem. p. 49.

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of the curious. And if they uſe this no more, 'tis becauſe they have found a way of making a dye more beautiful, and at leſs expenſe, with cochineal. They have even diſcovered a new purple, which, according to all appearances, was unknown to the ancients, although of the ſame ſpecies with theirs [c].

But ſuppoſe, though the ſecret of dying purple ſhould be loſt, I do not ſee any reaſon to regret the loſs of it much. It appears, from the teſtimony of all ancient writers [d], confirmed by modern diſcoveries [e], that ſtuffs dyed in this colour had a ſtrong and diſagreeable ſmell. Beſides, to judge of the effect of purple by the deſcriptions we now have of it, that colour could not be very agreeable to the eye. The ſcarlet, ſuch as we have now, is much above it. A few reflections will be ſufficient to convince us.

They diſtinguiſh many ſorts of purple colours. One was extremely deep, of a red drawing to a violet [f]. The other was more faint, approaching to our ſcarlet; this was the leaſt eſteemed [g]. Laſtly, that which they valued the moſt, was of a deep red, of the colour of bullocks blood [h]. 'Tis in alluſion to this colour, that Homer and Virgil give to blood the epithet of *purpled* [i]. It was this diſmal colour they principally ſought for in theſe ſorts of ſtuffs [k]. It was

[c] Acad. des ſcien. ann. 1711. mem. p. 169.

[d] Martial. l. 1. epigram. 50. v. 32. l. 4. epigram. 4. v. 6. l. 9. epigram. 63. See Turneb. adverſar. l. 9. c. 5.

[e] Journ. des ſcav. Aout 1686. p. 197.; Acad. des ſcien. ann. 1711. mem. p. 191. ann. 1736. mem. p. 55.

[f] Nigrantis roſae colore ſublucens. Plin. l. 9. ſect. 59. p. 524.

M. Huet, in the collection of Tilladet, t. 2. p. 252. pretends on the contrary, that this ſpecies of purple approached to the colour we call *dry roſe*, like to that which the leaves of the vines take when they are ready to fall. He adds, 'tis very nearly the ſame we ſee in the interior border of the rainbow.

I think M. Huet is miſtaken; but admitting his explication, this purple would only be more diſagreeable. This yellowiſh colour which he means, is never pleaſant to the ſight.

[g] *Rubens color, nigrante deterior.* Plin. ſect. 62. p. 526.

[h] *Laus ei ſumma in colore ſanguinis concreti.* Plin. ibid.

We obſerve in general, that the ancients only eſteemed dark colours. Anacreon gives the preference to roſes which draw towards black.

[i] Iliad. l. 17. v. 360. & 361.; Æneid. l. 9. v. 349.

[k] This is the idea Caſſiodorus gives us of it; he defines purple, *obſcuritas rubens, nigredo ſanguinea.* Variar. l. 1. ep. 2. p. 3.

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in this that thoſe of Tyre excelled all others. I leave it to be judged whether ſuch a colour ought to produce a very agreeable effect on the eye.

They had yet a fourth ſort of purple very different from that I have ſpoke of. The colour was whitiſh [l]; but as this ſpecies of dye does not appear to have been known but in ages greatly poſterior to thoſe we are now upon, I do not think it neceſſary to ſpeak of it *.

The ancients had ſo great an eſteem for purple colour, that it was ſpecially conſecrated to the ſervice of the Deity. I have already had an opportunity of obſerving that Moſes often uſed ſtuffs of this colour for the works of the tabernacle, and for the habits of the high prieſt. The Babylonians gave purple habits to their idols [m]. It was the ſame with moſt of the other people of antiquity. The Pagans were even perſuaded, that the purple dye had a particular virtue, and was capable of appeaſing the wrath of the gods [n].

Purple was alſo the diſtinguiſhing mark of the greateſt dignities. This cuſtom was eſtabliſhed from the earlieſt times. We have ſeen that the King of Phœnicia, to whom tradition ſays they preſented the firſt eſſays of this colour, had it reſerved for the ſovereign [o]. Among the preſents which the Iſraelites made to Gideon, the ſcripture makes mention of purple habits found among the ſpoils of the Kings of Midian [p]. Homer gives us plainly to underſtand that it only belonged to princes to wear that colour [q]. We may remark in reality that they never uſed it but for this purpoſe; a cuſtom obſerved by all the nations of antiquity.

I ſhall finiſh what I have to ſay of the purple, by examining the opinion of a moſt able naturaliſt on the ſorts of ſtuffs proper to receive this dye. He propoſed his ſentiment on account of the American purple which is made at Pana-

[l] Plut. in Alex. p. 686. D.

* Of this white purple, ſee La traduct. de Vitruv. par Perrault, l. 7. c. 13. p. 249. note 3.

[m] Jerem. c. 10. v. 9., Baruch, c. 6. v. 12. & 71.

[n] Diis advocatur placandis. Plin. l. 9. ſect. 60. p. 525.; Cicero. epiſt. ad Attic. l. 2. epiſt. 9. t. 8. p. 115.

[o] Art. 1. chap. 2. [p] Judg. c. 8. v. 26. [q] Iliad. l. 4. v. 144.

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ma [r]. They get it from a ſpecies of Perſian conch, called, from the place where it is made, *purple of Panama.* The colour which this ſhell affords will not take but on cotton, and other ſtuffs obtained from vegetables. The author of whom I ſpeak, in giving an account of this fact, adds, that there is nothing but the cochineal unknown to the ancients, which can ſtain red, ſtuffs made of animal ſubſtances. He concludes with this obſervation, that formerly purple ſtuffs could only be of cotton [s].

I do not think I ſay too much, in aſſerting that this ſentiment is plainly contradicted by the unanimous teſtimony of antiquity. We ſee by all the authors who have had occaſion to ſpeak of purple, that animal ſubſtances, and particularly wool, were ſuſceptible of this colour [t]. The very manner tradition reports the diſcovery of this colour, is a proof of what I advance. The firſt time they are ſaid to have ſeen the effect it had on the mouth of a dog: it was with wool that the ſhepherd wiped the mouth of that animal which he thought bloody. Hercules took that wool, and carried it to the King of Phœnicia [u]. If the American purple will not take but on cotton, it is becauſe the fiſhes which ſupply it, have different properties from thoſe purple ſhells which the ancients uſed. We may add, that probably they do not uſe the ſame preparations for this dye as they did formerly.

The diſcuſſion I have juſt been upon leads us very na-

[r] See les mem. de Trev. September 1703. p. 1689. Sept. 1704. p. 1773.

[s] Mem. de M. de Juſſieu the elder, read at the academy of ſciences, November 14. 1736; taken from the Mercury of December 1736. p. 2834.

[t] See Exod. c. 25. v. 5. c. 35. v. 6. & 23.; Horat. carm. l. 2. ode 16. v. 35. &c. Epod. od. 12. v. 21.; Alian. hiſt. animal. l. 16. c. 1.; Ovid art. amat. l. 1. v. 251. l. 3. v. 170.; Seneca. Hercul. Oet. act. 2.; Cicero philoſophic. fragm. t. 3. p. 424.; Plin. l. 9. ſect. 62. p. 526. & 527.

This author even ſpeaks of living ſheep, which they had dyed purple, l. 8. ſect. 74. p. 477.

[u] Palaephat. Achil. Tatius, *locis cit.*

If we believe Pliny, l. 7. p. 414. & Hygin. fab. 274. the art of dying wool in general was known very late, ſince they give the honour of this diſcovery to the inhabitants of the city of Sardis, built after the taking of Troy. Strabo, l. 13. p. 928.

But this fact advanced by theſe two authors, is denied by all antiquity.

turally

turally to inquire into the means the ancients uſed to make their dyes ſolid and laſting. We ſee that they uſed a good deal of ſalt in theſe ſorts of operations [x], and they muſt really do it; but all ſorts of ſalt except the cryſtal of tartar or tartar of vitriol, will diſſolve in water, or calcine in the ſun [y]. We ſee alſo that the ancients on many occaſions made their dyes with the blood of animals [z]. We know that all dyes into which they put the blood of animals, without mixing mineral acids, evaporate, change, and become black with time. It is only by the help of chymiſtry that we can procure ſuch ſpecies of ſalts as I have now deſcribed, and the acid minerals, ſo neceſſary in dying. But chymical preparations were unknown to the ancients: we are therefore led to believe that they could only have very bad dyes.

Yet we never find the ancients complain that the colour of their ſtuffs was ſubject to alter or change [a]. They muſt then have made up for theſe chymical operations by particular methods. They muſt have had ſome preparations, ſome ſecrets we are ignorant of. Plutarch tells us in the life of Alexander, that the conqueror found among the treaſures of the Kings of Perſia, a prodigious quantity of purple ſtuffs, which for one hundred and eighty years which they had been kept, preſerved all their luſtre and all their primitive freſhneſs, becauſe, ſays he, they had been prepared with honey [b]. A kind of preparation abſolutely unknown to us.

We find in Herodotus, that certain people on the borders of the Caſpian ſea, imprinted on their ſtuffs deſigns either of animals, or flowers, whoſe colour never changed, and laſted as long even as the wool of which their cloaths were made. They uſed for this buſineſs the leaves of certain trees which they bruiſed and diluted in water [c]. We know that the ſavages of Chili make with certain plants, dyes

[x] See Plin. l. 9. ſect. 62.; Plut. t. 2. p. 433. B.
[y] Acad. des ſcien. ann. 1740. H. p. 60. ann. 1741. mem. p. 42. 70. & 71.
[z] See P. Calmet, t. 2. p. 318.
[a] Vitruv. l. 7. c. 13. & Lucret. l. 6. v. 1072. &c.
[b] Plut. p. 686. D. [c] L. 1. n. 203.

which

which will bear waſhing with ſoap many times without loſing their colour [d]. Laſtly, Pliny deſcribes the way which the Egyptians made painted linen, which deſerves ſome attention. They began, ſays he, by laying on certain drugs on white linen, and then put it into the vat full of boiling dye. After having left it there ſome time, they drew it out painted of divers colours. Pliny obſerves that they had only one ſort of liquor in the vat. The different colours painted on the cloth, could not be produced but by diverſe preparations laid upon it. Theſe colours were ſo adheſive, that it was not poſſible to change them, whatever waſhings they afterwards gave to the cloth. Pliny even adds, that theſe ſorts of ſtuffs were ſtrengthened by it, and were better for being dyed [e]. We may conclude from all theſe facts, that, in all probability, the ancients had preparations by which they ſupplied the ſuccours we draw from chymiſtry, to fix the colour of our ſtuffs. And if the particulars of theſe operations are at preſent unknown, it is becauſe new diſcoveries infinitely more ſure and more commodious have made theſe ancient methods inſenſibly diſapear. I have already made this obſervation [f].

There ſhould remain one queſtion more to propoſe with relation to a red colour different from purple, which is ſo often mentioned in Exodus [g]. Opinions are divided as well as to the ſenſe of the Hebrew word *, as on that of *coccus* by which the Septuagint and the Vulgate have tranſlated it. Some think it is crimſon, others, that it is ſcarlet. By adopting the tranſlation of the Septuagint and the Vulgate, which I believe right, it is eaſy to ſhew that the colour called *coccus* by the Greeks and Romans, is ſcarlet, very different from crimſon. The examination of the materials proper for one and the other colour, ought to decide the queſtion.

[d] Voyage de Frezier, p. 72.

[e] L. 35. ſect. 42. p. 709. All this preparation is deſcribed by Pliny in a very embarraſſed and obſcure manner, according to the cuſtom of this author: I have endeavoured to make it as clear as poſſible, but I would not warrant the exactneſs, and leſs ſtill the reality of it.

[f] 2. c. 2. art. 1. [g] C. 25. v. 4. * תולעת שני, *Tolaat-Schéni.*

Crimſon, properly ſo called, is of a deep red, and is made with cochineal, an ingredient abſolutely unknown to antiquity. Scarlet is of a lively and bright red. To make this dye, they uſe a ſort of little reddiſh grains which they gather from a ſort of French or holm oak, a dwarf-tree common in Paleſtine, in the iſle of Crete, and in many other countries [h]. They find on the leaves and on the bark of this ſhrub, little nuts or bladders about the ſize of a juniper-berry. Theſe excreſcences are occaſioned by the eating of little worms [i]. The Arabians have given them the name of *kermes*; we call them the *ſcarlet grain*, or *vermilion* [k], becauſe they uſe it to make the moſt beautiful and lively red. Let us apply theſe principles to the queſtion in hand.

It is certain, that the ancients had a red colour much eſteemed, called *coccus*, which they diſtinguiſhed from purple [l]. The *coccus* differed from the purple, as well by its preparation, as by its ſhade and the effect of the colour. Purple, as we have ſeen, was of a deep red approaching to coagulated blood, and was dyed with the liquor of certain ſhell-fiſhes. The *coccus*, on the contrary, was of a gay red, lively, bright, approaching to the colour of fire [m]. This dye was made with a ſort of little grains which they gathered on the holm oak [n]. The ancients even called theſe grains, which at preſent we call *ſcarlet grain, fruits of the holm oak* [o]. Neither were they ignorant, that theſe pretended fruits incloſed worms [p]. After this expoſition, it clear-

[h] Voyage de la Terre-Sainte du P. Roger, recollet. l. 1. c. 2.; Voyage de Monconys, part 1. p. 179.; Bellon, obſervat. l. 1. c. 17. l. 2. c. 88.; Acad. des ſcien. ann. 1714. mem. p. 435. ann. 1741. mem. p. 50.

[i] Acad. des ſcien. ann. 1714. Mem. p. 13. [k] Ibid.

[l] Exod. c. 25. v. 4.; Plin. l. 9. ſect. 65. p. 528.; Quintil. inſtit. orat. l. 1. c. 2. At Rome ſcarlet was allowed to every body, but the purple was reſerved for the higheſt dignities.

[m] Plin. l. 9. ſect. 65. p. 528. l. 21. ſect. 22. p. 240.

[n] Theophraſt. hiſtor. plant. l. 3. c. 16.; Plin. l. 16. ſect. 12. p. 6.; Dioſcorid. l. 4. c. 48.; Paul. l. 10. c. 36.

[o] Πρίνου καρπόν. Plut. in Theſ. p. 7.; Plin. l. 16. ſect. 12. p. 6. calls theſe little grains *cuſculia*, from the Greek κόσκυλλιν, which ſignifies to *cut little excreſcences*; becauſe in effect they cut and ſcrape theſe ſmall grains off the bark and the leaves of the holm oak.

[p] *Coccum ilicis celerrime in vermiculum ſe mutans* ſays Pliny, l. 24. [illegible] 4. p. 327.

ly

ly appears, that the colour named *coccus* by the ancients, was our ſcarlet *. The Septuagint and Vulgate having tranſlated by that word, the Hebrew term uſed by Moſes to deſign a red colour, other than purple, it follows, that they believed he meant the ſcarlet. But independently of the authority and conſideration which theſe interpreters deſerve, the etymology of the terms of the original text proves the truth of the ſentiment which I propoſe. We ſee there plainly intended a dye made with worms q.

But I do not think, that this colour was as brilliant as that which we now call fine ſcarlet. I even doubt whether the ancients could approach towards it. Let us not forget, that, before chymical diſcoveries, the art of dying muſt have been very imperfect r. Without the preparations which chymiſtry affords, we could not dye ſtuffs fine ſcarlet. This is the moſt bright and beautiful colour in dying; but one of the moſt difficult to bring to its point of perfection s.

ARTICLE II.

Of the variety and richneſs of ſtuffs.

WE have ſeen in the firſt part of this work, that the invention of embroidering ſtuffs, and varying the tiſſue with different colours, was very ancient. It was not poſſible, for want of monuments at that time, to enter into any detail of the progreſs of theſe two arts. The ages we are now treating of, give us a better opportunity of judging. We here ſee great magnificence and great taſte in dreſs. To read ſome chapters in Exodus, is ſufficient to convince us of

* This is alſo the opinion of Mathiolus on Dioſcorides.

q Exod. c. 39. v. 1. & 28. See le P. Calmet, t. 2. p. 350. & 351.

At preſent they make very little uſe of *coccus* or *kermes* in dying. The cochineal, far ſuperior to all drugs heretofore uſed to dye red, has made them leave it off. *Acad. des ſcien. ann.* 1741. *mem. p.* 69.

r See Senac, nouveau cours de Chymie, pref. p. 70.

Pliny gives us to underſtand, that the colour of ſtuffs formerly dyed ſcarlet was not ſufficiently durable nor adheſive, l. 22. ſect. 3. p. 266. See alſo the remarks of P. Hardouin, note 5.

s Acad des ſcien. ann. 1741. mem. p. 56.

this. What moſt deſerves our attention, is the manner they could then employ the colours in the making of ſtuffs. It is certain, that they were not one and the ſame colour. Scripture ſpeaks of works where there were many colours [t]. But in what way did they diſtribute them? were theſe ſtuffs ſtriped or ſhaded? The firſt of theſe operations does not require much art; the other requires much more ſkill and ability. Yet it is very probable, that they then knew the ſecret of ſhading ſtuffs. Moſes ſpeaks of works in embroidery with a tiſſue of different colours with an *agreeable variety* [u]. The expreſſion *agreeable variety*, which he uſes to diſtinguiſh theſe ſorts of ſtuffs, leads us to think, that the colours were not uniform, but that they had obſerved a gradation. But what completes the confirmation of this ſentiment, is the force of the Hebrew word [x] uſed to deſign embroidered ſtuffs. To a tittle, this word ſignifies works of *embroidered feathers* [y]. Yet it does not appear, that the Hebrews then made uſe of the feathers of birds. It is not mentioned in the enumeration of the things uſed for the ornament of the tabernacle, and for the dreſſes of the high prieſt. The relation between the feathers of birds and the effect of embrodieries, expreſſed by the term of the original text, appears to me to ſhew an imitation of the manner in which the colours are graduated in the plumage of birds, and conſequently of ſhaded ſtuffs.

It was not only among the Hebrews, that the art of working embroidery was then in uſe. This art was equally known to many other people of Aſia. Homer deſcribing the occupations of Helen at Troy, ſays, that this princeſs worked a wonderful piece of embroidery. She there repreſented the bloody fights fought between the Greeks and the Trojans [z]. He ſpeaks alſo of another work of the ſame kind, to which Andromache applied herſelf when ſhe heard of the death of Hector. The ſubject of it was many ſorts of flowers [a]. Before the war of Troy, the women of Sidon were famous

[t] Exod. c. 26. v. 1. & 31. c. 39. v. 2. [u] Exod c. 26. v. 1. & 31.

[x] רִקְמָה, *Rakamah*, v. 36.

[y] Ezekiel, c. 17. v. 3. ſpeaking of the wings of the great eagle, uſes the word *Rakamah*.

[z] Iliad. l. 3. v. 125. [a] Ibid. l. 22. v. 440. *&c.*

for

for their addreſs and dexterity in working embroidery, and ſtuffs of different colours [b].

At that time, they alſo knew the ſecret of putting gold into the tiſſue of ſtuffs and in embroideries. The ſcripture obſerves, that they uſed much gold in the habits of the high prieſt, and in the vails deſigned for the tabernacle [c]. How did they then prepare that metal for the making of ſtuffs? was it, as at preſent, drawn into wire, beaten, wound, and wrapt round other threads? or was it merely gold-hammered into very thin leaves, afterwards cut with a chiſel into little plates, or long and ſmall ſhreds, which they put into the texture of their ſtuffs? Moſes ſays, "And they did beat the "gold into thin plates, and cut it into wires, to work it in the "blue, and in the purple, and in the ſcarlet, and in the fine "linen [d]." The ſenſe of theſe expreſſions does not appear to me ſufficiently determinate, abſolutely to decide in favour of the firſt of theſe methods which I have ſhewn. I even think, that the paſſage in queſtion gives us no idea of gold wire drawn as at preſent with a drawing-iron. The moſt natural interpretation, is to ſay, that they twiſted the plates of gold about ſome of the different ſtuffs of which the ephod and the vails of the tabernacle muſt have been compoſed. They made, by this means, a ſort of gold thread reſembling ours, except that the baſis of this thread was of pure gold cut into ſhreds, whereas ours is only ſilver gilt drawn by the drawing-iron.

We might perhaps raiſe a difficulty, and ſay, that the ſtuffs in queſtion were made only of pure plates of gold interwoven: there is mention made of ſuch habits in Pliny [e]. We alſo know, that they ſometimes adorned the images of the gods in dreſſes of this ſort [f]. But the text of Moſes is abſolutely repugnant to this notion: he ſays expreſsly, that the gold was reduced into very thin plates, that it might be

[b] Iliad. l. 6. v. 289. *&c.*

[c] Exod. c. 28. v. 8. c. 39. v. 3. [d] Ibid c. 39. v. 3. [e] L. 33. ſect. 19. p. 616.

[f] Ariſt. de cura rei famil. l. 2. t. 2. p. 511.; Ælian. var. hiſt. l. 1. c. 20.; Cicero, de nat. deor. l. 3. n. 34.; Valer. Max. l. 1. c. 1. ſect. 3. *externa.*; Pauſ. l. 5. c. 11.

wound

wound and twiſted to put it into the tiſſue of the other threads of divers colours. This detail removes all the difficulty.

The art of putting gold into the tiſſue of ſtuffs, muſt have been known in many countries in the ages we are now examining. Homer ſpeaks of the girdle of Calypſo, and of that of Circe [g]. We might likewiſe believe, that this poet mentions ſilver ſtuffs [h]. But all interpreters agree to underſtand the expreſſions which Homer uſes in this paſſage, of white habits [i]. The ancients did not uſe to put ſilver into their ſtuffs [k]. We find in reality, ſince Moſes and Homer, an uninterrupted tradition in antiquity about gold ſtuffs, whereas we find nothing like it as to ſilver ones. We cannot bring one ſingle paſſage, that is clear and preciſe, of any ancient author, where mention is made of ſilver wire. Pliny, who has expreſsly ſpoken of gold wire, would he have forgot or neglected to remark that they did the ſame work in ſilver? His ſubject, his ends, his method, all required that he ſhould ſpeak of it, if that art had been known in his time. The ſame author, in a particular chapter, treats at large of the uſe they made of ſilver for divers ornaments [l]. Yet in all the enumeration he gives of the many uſes to which they put this metal, there is not one word of ſilver wire.

I ſhall finiſh what I have at preſent to ſay on the habits of the ancients, by an obſervation I think very important. We perceive a very ſenſible difference between the ſtuffs the ancients uſed, and thoſe we uſe at preſent. All the dreſſes anciently might be waſhed and bleached daily [m]. The greateſt part of ours would be ſpoiled by ſuch an operation. I only juſt mentioned this. The fear of falling into details, which, in the end, might become tireſome, hinders me from farther inquiring into them.

[g] Odyſſ. l. 5. v. 232. l. 10. v. 543. *&c.* [h] Ibid. l. 5. v. 230. l. 10. v. 23. & 24. See Heſychius, voce Ἀργυρέοιο.

[k] See Vopiſc. in Aurelian. p. 224. *&c.* and the notes of Saumaiſe, p. 394.

[l] L. 33. c. 12.

[m] See Iliad. l. 22. v. 154. & 155.; Odyſſ. l. 6. v. 91. & 92.; Herod. l. 2. n. 37.

ARTICLE

ARTICLE III.

Of the diſcovery and employment of precious ſtones.

IT is ſaid in ſcripture, that the ephod and the breaſt-plate of judgment of the high prieſt, were ornamented with many precious ſtones; the aſſortment appeared various and complete enough. Theſe ſtones were mounted in gold, and diſpoſed with order and ſymmetry. Moſes farther ſays, that he had engraved on them the names of the twelve tribes[n]. All theſe facts are ſufficiently important to merit a particular regard.

We do not find any mention made in ancient hiſtory of the uſe of precious ſtones, before Moſes. Yet I do not think, that one ought to look upon him as the inventor and author of that ornament. That knowledge muſt have preceded the time of this legiſlator; and it appears to me very probable, that, in this particular, he only conformed to a cuſtom already received. This conjecture is ſupported by the teſtimony of the book of Job, a work, I believe, prior to Moſes[o]. Many ſpecies of precious ſtones are ſpoken of there[p]. Job could not have entered into this detail, if jewels had not been well known in his time. I alſo think we have a glimpſe of proofs of the antiquity of this knowledge, in the deſcription Moſes gives of the terreſtrial paradiſe. He ſays, that one of the branches of the rivers which ran from that place of delights, watered the land of Hevilah: it is there, adds he, that we find precious ſtones[q]. Moſes, I think, would not have indicated this circumſtance in ſo ſimple a manner, if the fact had not been well known before the time in which he writ.

It is very probable, in reality, that the firſt men ſhould have known very early coloured precious ſtones. We may eaſily imagine in what manner they ſhould have come to

[n] Exod. chap. 28.
[p] Chap. 28. ver. 6. &c.
[o] See our diſſertation.
[q] Gen. c. 2. v. 12.

this

this diſcovery. The ſame cauſes which originally diſcovered metals, I mean, the throwing up of the earth, and the ravage of great waters, might have given the knowledge of precious ſtones. We find theſe rich productions in the mines where metals are formed [r], in rivers [s], and even at the ſurface of the earth [t], where torrents often leave them. Although the colour of rough precious ſtones is neither very lively nor brilliant, yet they are ſufficiently ſo, to be remarked, and for the ſight of them to excite our attention; yet they might have neglected them at firſt, and to the time they found the art of poliſhing them. It is to this operation, that fine ſtones owe that brilliancy and livelineſs which has made them always ſo much ſought after. Chance, it is certain, muſt have had a great ſhare in this diſcovery. Among the number of rough ſtones which happened to be ſeen by the firſt men, they muſt have found ſome naturally broke. The luſtre and livelineſs with which they had ſeen theſe breaks ſhine, muſt have given the firſt notion of poliſhing. They tried to imitate the operation of nature, in taking from the ſtones, that bed, that dark ſhell, with which they are commonly covered. We can only form conjectures of the way they could have attained this. They muſt firſt have overcome the obſtacle which they muſt have met with in the extreme hardneſs of moſt of thoſe ſtones. Yet chance muſt have aſſiſted the firſt men on this occaſion. Almoſt all true ſtones muſt be poliſhed with their own powder. Some perſon muſt have thought of rubbing two oriental ſtones againſt each other, and has ſucceeded, by this means, to give them a ſort of poliſh. The cutting of the diamond owed its origin to a ſtroke of chance.

[r] Theophraſt. de lapid. p. 395.; Plin. l. 37. ſect. 15. & 32. *&c.*; Solin. c. 15. p. 26. D.; Iſidor. orig. l. 16. c. 7.; Alonzo Barba, t. 2. p. 8. &. 334.

[s] Theophraſt. de lapid. p. 396.; Strabo, l. 2. p. 156.; Plin. l. 37. ſect. 17. & 23. p. 778.; Solin. c. 15. p. 26. D.; Iſidor. origin. l. 16. c. 8.; Anc. relat. des Indes, p. 123.; Colonne, hiſt. nat. t. 2. p. 361.

[t] Plin. l. 37. ſect. 76.; Iſidor. l. 16. c. 8.; Alonozo Barba, t. 2. p. 71.; Hellot. de la fonte des mines, p. 22. 24. 25. 40. 55.; Hiſt. gen. des voyag. t. 8. p. 549.; Rec. des voyag. au Nord, t. 10. p. 65.; La Condamine, voyag. a l'équateur, p. 81. & 82.; Colonne hiſt. nat. t. 2. p. 361.; Voyage de D. Ant. d'Ulloa, t. 1. p. 393.; Acad. des ſcien. ann. 1718. m. p. 85.

Lewis

Lewis de Berquen, a native of Bruges, is ſaid to have been the firſt who put this in practice; it is not yet three hundred years ſince [u]. He was a young man, who had juſt left ſchool, and being born of a noble family, was in no reſpect brought up as a lapidary. He had found out, that two diamonds cut each other, if they were rubbed a little ſtrongly againſt each other: this was ſufficient to raiſe, in an induſtrious perſon, and one capable of meditation, very extenſive ideas. He took two diamonds, fixed them on cement, he grated them againſt each other, and carefully collected the powder which came from them. Afterwards, by the aſſiſtance of certain iron wheels which he invented, he came, by means of this powder, to poliſh diamonds perfectly, and to cut them in what manner he thought proper [x].

I think, we may very well apply this example to the origin of the art of poliſhing precious ſtones. Yet I doubt, that in the firſt times, or even in the ages we are now engaged in, whether they knew the methods we uſe at preſent to give to ſtones that beautiful poliſh, and thoſe agreeable forms which cauſe their principal merit. The proceedings of the firſt lapidaries could only be very imperfect. I think we ought not to judge very favourably of their knowledge, nor even of that which, in general, antiquity might have in this part of the arts.

But how imperfect ſoever the ancient methods may have been, it is certain, that, at the time of Moſes, the art of poliſhing precious ſtones was known. They alſo knew how to ſet them; a work very delicate. But what appears to me moſt worthy of notice, is, that they then knew the art of ingraving them The ephod of Aaron was adorned with two onyxes ſet in gold. They had ingraved the names of the twelve tribes, that is to ſay, he had ſix names ingraved on each ſtone [y]. The breaſt-plate of judgment ſhone

[u] In 1476. Merveill. des Indes Orient. par de Berquen, p. 13.

[x] Ibid.

[y] Exod. c. 28. v. 9. *&c.* The Hebrew text implies, *of a work of an ingraver of fine ſtones, and ingraving of ſeals.*

with the luſtre of twelve precious ſtones of different colours, and on each was read the name of one of the twelve tribes[z]. If we have ever ſo little experience in the arts, we know, that to ingrave fine ſtones requires ſkill, preciſion, and knowledge. We muſt have many fine and delicate tools, a great ſteadineſs of hand, and practice. I agree, that, for the fineneſs of execution, we ought not to compare the ingraving of ſome names, to the labour and dexterity required in the figures of men or animals, or ſubjects of compoſition. But as to the eſſence of the art, the proceſs is always the ſame, and only differs in the degrees of perfection. We ought to be ſurpriſed to ſee, in the time of Moſes, and without doubt before, that they were able to execute ſuch works. I look upon ingraving on fine ſtones as the moſt remarkable evidence of the rapid progreſs of the arts in ſome countries. This work ſuppoſes a number of diſcoveries, much knowledge, and much experience *.

As to the ſpecies of precious ſtones which adorned the habits of the high prieſt, we can only ſpeak of them in a very uncertain manner. Interpreters do not agree in the ſignification of the Hebrew terms; and we muſt allow, that it is almoſt impoſſible, for want of monuments and points of compariſon, to be able to aſcertain it: we only know, that Moſes meant an aſſortment of coloured precious ſtones; I ſay of coloured, becauſe I do not think one ought to put the diamond among the precious ſtones they knew at that time. Many other reaſons authoriſe this doubt. I could immediately avail myſelf of the opinions of interpreters and commentators, the greateſt part of whom do not admit of the diamond. I could likewiſe ſhew, that thoſe who have thought proper to comprehend this ſtone among thoſe of the breaſt-plate, are not ſupported by any certain etymology. But without troubling ourſelves with all theſe diſcuſſions, I

[z] Exod. c. 28. v. 17.

* It muſt be agreed, that the ancient Peruvians, whoſe monarchy had not ſubſiſted above 350 years, underſtood perfectly well the working of precious ſtones. *Hiſt. gen. des voyages, t.* 13. *p.* 578. *&* 579.

think

think we may find facts enow in antiquity, to make us doubt of diamonds being in uſe at the time of Moſes.

We ſee that there is no mention made of this precious ſtone in the writings of the moſt ancient authors of antiquity. Homer, Heſiod, Herodotus, who had occaſion to deſcribe ſo many different ſorts of ornaments, never mention the diamond *. We muſt deſcend almoſt to the ages juſt preceding the Chriſtian æra, to find any writer who has made mention of them. Pliny, who appears to have made great reſearches about precious ſtones, owns that the diamond was a long time unknown [a]. And it muſt have been ſo in reality. Many ages muſt have paſſed away before they knew the value of that ſtone, and many more before they knew to ſet a price upon it.

The diamond is of no value but as it ſhines, and it could not ſhine till it was cut. Lucky chances, one may ſay, may have offered early ſome of theſe ſtones naturally poliſhed. Theſe natural diamonds may have put the firſt men in the way of knowing thoſe that were rough, and may have given hints to cut them. It is true, we ſometimes meet with diamonds, where the cutting ſeems to be ſhewn; having long rolled in the bed of rapid rivers, they are found naturally poliſhed, and appear tranſparent; ſome are even cut in facets or tables [b]. They call theſe ſorts of diamonds, *rude plains*; and when their figure is pyramidal, they call them *natural points* [c]. But theſe happy conjunctures, beſides that they were very rare, could not have been of much uſe to the firſt men for the knowledge of diamonds. There is no ſort of relation, nor any reſemblance between theſe ſorts of ſtones when they are rough, and when they are cut. It is not with diamonds as with coloured ſtones. Theſe, though rough, have a colour, which

* It is proved, that the terms ἀδάμας, and ἀδαμάντινος, which we find ſometimes in the writings of Homer and Heſiod, have no relation to the diamond.

[a] L. 37. ſect. 15. [b] Leibnitz Protog. p. 23. edit. in 4to, 1748.

[c] Boetius de Boot, gemm. & lapid. hiſt. l. 2. c. 3. p. 121.; Tavernier, t. 2. l. 2. c. 16. p. 277, c. 17. 283; Alonzo Barba, t. 2. p. 191.; De Laet. de gem. & lapid. l. 1. c. 1. p. 314.; Mariette, traité des pierres gravées, t. 1. p. 155.

at all times muſt have made them be remarked, and give an idea to poliſh them; whereas diamonds, before they are cut, ſhew nothing like it, and indicate nothing of what they are in the inſide. They look like a grain of ſalt, a common flint of greyiſh white, dirty and dull. The firſt men of conſequence could not have paid any attention to them. This, we know, has happened to the diamonds of Braſil. They were a long time neglected, and confounded with flints and gravels [d]. It is not above thirty years, or thereabouts, that they began to know their value [e].

We ſhould not then be ſurpriſed to ſee that in antiquity fine coloured ſtones were ſo common, while diamonds were ſo rare. They muſt have been a long time unknown. It required ſome ages to learn men that theſe ſorts of flints, which they had ſo long neglected, were the moſt bright and the richeſt production of nature. They could not be inſtructed before they had diſcovered the art of cutting them; a very late diſcovery, ſince it is not yet of 300 years ſtanding [f]. Before that time they could not have ſeen any diamonds but *rough poliſhed*, or *natural points*. We ſee theſe ſorts of ſtones in the deſcription which Pliny, Solinus, and Iſidorus give of the diamond. They deſcribe it generally very ſmall [g], with ſix angles or faces [h], and tranſparent [i], yet approaching to a black [k], and without much water or vivacity. Iſidorus even defines the diamond, an Indian ſtone ſmall and little agreeable [l]. All theſe characters agree very well with the *natural points*. Theſe ſorts of ſtones are commonly very ſmall. We ſometimes meet with ſome, which by a ſport of nature are cut with ſix faces,

[d] Anſon's voyage, p. 44.

[e] Ibid.; Mercure de France, Janvier 1730. p. 124. Fev. 1732. p. 344. & 345.; Mariette, *loco cit.* p. 161.

[f] By Lewis de Berquen in 1476. See the beginning of this article.

[g] Plin. l. 37. ſect. 15.; Solin. c. 52. p. 59. C.; Iſidor. orig. l. 16. c. 13.; Marbod. l. de lapid. pret. c. 1.

[h] Plin. Solin. *locis cit.* [i] Plin. Solin. Iſidor. ibid.

[k] *Hunc ita fulgentem cryſtallina reddit origo.*
Ut ferruginei non deſinat eſſe coloris. Marbod. *loco cit.*

[l] *Adamas, Indicus lapis, parvus, & indecorus, ferrugineum habens colorem,* loco cit.

in

in a pretty regular manner [m]. But theſe diamonds have little that is agreeable in them. The poliſhing is coarſe, the form irregular, without water and without vivacity: we cannot compare them to any thing better than a piece of burniſhed ſteel [n]. To convince us of the truth of theſe facts, we need only to caſt our eyes on any of the ancient trinkets adorned with diamonds.

They preſerve in the treaſury of St Denis a claſp of the mantle which our kings uſed to put on the day of their coronation. This piece is very ancient *. We there ſee four *natural points*. There is likewiſe in the ſame treaſury, a relict almoſt as ancient † as the claſp I have ſpoken of, and adorned with eight *natural points*. All theſe ſtones are very ſmall, black, and no way agreeable to the eye. There is only one on the relic of St Thomas a little brighter than the others, and has a little more water. It is plain that Pliny means this ſort of ſtones, when he ſays, that the diamond was like cryſtal [o].

All imperfect as theſe ſorts of diamonds are, they are very rare, and are not often met with. Wherefore, they looked upon them formerly as the moſt valuable production of nature. Pliny remarks, that for many ages none but the moſt powerful monarchs were able to have them [p]. They ſuſpected Agrippa, the laſt King of the Jews, of having an inceſtuous commerce with his ſiſter Berenice. The diamond of which he made a preſent to that princeſs, almoſt confirmed their ſuſpicions [q]; ſo high an idea had they of this ſtone, then looked upon as ineſtimable. All theſe conſiderations, joined to the ſilence with reſpect to diamonds, of the moſt ancient writers of antiquity, make me doubt whether this precious ſtone was of the number of thoſe uſed by Moſes to adorn the ephod and breaſt-plate of the

[m] Bibl. choiſ. t. 1. p. 265.; De Laet, de gemm. & lapid. l. 1. c. 1. p. 314.
[n] See merveill. des Indes, p. 13.
* They think it was about the time of St Lewis.
† It was given by John Duke of Berry, ſon of King John.
[o] L. 37. ſect. 15. p. 373.
[p] *Diu non niſi regibus, & iis admodum paucis cognitus*, l. 37. ſect. 15. *init.*
[q] Juvenal. ſatir. 6. v. 155. &c.

high

high prieſt. Let us add to this the extreme difficulty of ingraving the diamond.

They will object to me, without doubt, the names of the twelve tribes ingraved on the ſtones of the ephod and breaſt-plate. It is with powder of diamond that they commonly execute this ſort of work. We may then infer, that, at the time of Moſes, they had found out this property in the powder of diamond, and that they were able to uſe it to poliſh the diamond itſelf. The objection is plauſible, and the conſequence very natural. But yet it is not difficult to be anſwered.

Nothing at preſent obliges us to believe, that the artiſts who ingraved the names of the twelve tribes on the ſtones of the ephod and the breaſt-plate, did make uſe of the powder of diamond; they might uſe for theſe ſorts of works, rubies, ſapphires, or other oriental ſtones reduced to powder[r]: they might even uſe emery [s], the property of which was not unknown to the ancients [t]. I own that there is no compariſon to be made between a work executed with powder of diamond, and that which is only done with powder of oriental ſtones *, or emery. But theſe powders were ſufficient to ingrave names, which do not require ſuch elegant workmanſhip as the figures of men, animals, flowers, &c.

Beſides, ſhould it be granted that the ingravers employed by Moſes, made uſe of the powder of diamond, that would decide nothing as to the knowledge of cutting the diamond. It is certain that the ancients knew perfectly the property of the powder of diamond to poliſh fine ſtones; they made great uſe of it, as well for graving, as for cutting them.

[r] Mariette, traité des pierres gravées, t. 1. p. 202. [s] Id. ibid.

[t] See Job, c. 41. v. 15. edit. of 70.; Dioſcorid. l. 5. c. 166.; Heſychius, σμὶρις Σμύρις.

* The term *oriental* ſtones, in the ſtyle of a lapidary, does not always ſignify a ſtone which comes from the eaſt. They mean in general a very hard ſtone, ſuch as ſapphires, rubies, topazes, & amethyſts.

It is to diſtinguiſh theſe ſorts of ſtones, from thoſe which are ſofter, that they call them *orientals*; thoſe of the eaſt being commonly much harder than thoſe of other countries, though we ſometimes meet with ſome as hard as thoſe which come from the eaſt. And even theſe laſt are not all of an equal hardneſs.

Pliny

Pliny ſays ſo very plainly [u]; and if he had not, the principal works which the ancients have produced in this way, and which we ſtill have before us, would ſufficiently ſhew it. But it is equally certain that it never came into their thoughts to uſe this powder on the diamond itſelf, and the art of cutting it was unknown to all antiquity. This fact, it is true, appears difficult to comprehend: it is not however for that leſs certain. This is not the only example that we might quote of the bounds which the human mind ſeems often to have impoſed on itſelf. It ſtops in the moment that it is neareſt its end, and when one ſtep further would reach it.

As we are on this article, I think we ought to ſhew in few words what we find among the ancients on the nature of the diamond, and of the places where they found it. The manner in which they ſpeak of them, has given room to ſome modern authors [x], to think, that the diamonds known in antiquity, were not of the ſame ſpecies with thoſe we uſe at preſent.

We ſee that the ancients got theſe precious ſtones from many countries, where they are not to be found at this time. It is ſaid, that at firſt they came only from Ethiopia; they got them from certain mines ſituated between the temple of Mercury and the iſle of Meroe [y]. Theſe ſtones could not be much eſteemed, ſince the largeſt were not above the ſize of a cucumber ſeed, and approached to that colour [z]. Afterwards they got diamonds from many countries, from the Indies, from Arabia, the iſle of Cyprus, and Macedonia [a]. All theſe ſtones were very ſmall, the largeſt being of the ſize of a nut-kernel [b]. What appears moſt aſtoniſhing, is, that, according to ſome authors, they found diamonds in the European Sarmatia, among the A-

[u] L. 37. ſect. 15. p. 773. ſect. 76. p. 796.

[x] Aldrovand. Muſ. metal. l. 4. c. 78. p. 947.; Colonne, hiſt. nat. t. 2. p. 353. & 354.

[y] Plin. l. 37. ſect. 15. Diodorus and Strabo, who ſpeak likewiſe of this iſle, ſay plainly that it had many mines of gold and precious ſtones; but they do not ſpecify the diamond in particular. Diod. l. 1. p. 38.; Strab. l. 17. p. 1177.

[z] Plin. l. 37. ſect 15. [a] Ibid. [b] Ibid.

gathyrſes

gathyrſes [c], a people who dwelt above the Palus Meotis [*]. It was even, if we believe them, in theſe frozen regions, that they ſaw the moſt beautiful diamonds [d]. Let us further ſay that the ancients were perſuaded that the greateſt part of precious ſtones came from gold mines [e].

Except the Indies, we at this time get no diamonds from any of the countries I have named; and even in the Indies, we at preſent only know the kingdoms of Golconda, of Viſapour, and of Bengal [f], where there are ſaid to be mines. Some travellers ſay that ſome are likewiſe found in the iſle of Borneo [g]; and they aſſure us that formerly they got diamonds from other different countries of the Indies [h]. Be it as it will, the mines uſed at preſent have only been known a few ages. Tavernier ſays that that of Bengal is looked upon as the moſt ancient [i], without fixing the time of its diſcovery. The mine of Viſapour has only been known about 300 years [k]. For that of Golconda, at the time of Tavernier, it was only one hundred years ſtanding [l]. As to the mines of Braſil, it is only thirty years, as I have before obſerved, ſince they were diſcovered [m]. Theſe are the only countries where we now find diamonds.

[c] Amm. Marcell. l. 22. c. 8. p. 314.

[*] See Cellarius, not. orb. antiq. p. 405.

[d] Dionyſ. Perieget. v. 318. & 319.

This paſſage of Dionyſ. Perieget. fixes the ſenſe in which we ought to take the term *adamantis lapidis*, which Ammianus Marcellinus uſes, *loco cit.* He could not mean the *load-ſtone*.

[e] Plin. l. 37. ſect. 15.; Solin. c. 52. p. 59. D.

Plato, in politico, p. 558. and in Tim. p. 1066. ſpeaks of an hard metallic body which he calls ἀδάμας; but I doubt whether that philoſopher meant the diamond. See how he explains himſelf. "What they call ἀδάμας, is "nothing but a branch of gold, whoſe extreme denſity has made it black and "very hard." One may alſo tranſlate this paſſage by "Ἀδάμας is only gold "which has acquired a black colour, and, on account of its extreme denſity, "is very hard."

Is it really then of the diamond Plato would ſpeak? It is not the load-ſtone which he commonly calls the ſtone of Hercules or of Heraclea, in Tim. p. 1080. in Ion. p. 363. What is it then he would mean? that is what one cannot well comprehend.

[f] Tavernier, part. 2. l. 2. c. 15. 16. & 17. [g] Ibid. c. 17. p. 284.

[h] Boetius de Boot. gemm. & lapid. hiſt. l. 2. c. 3.; De Laet, de gemm. & lapid. l. 1. c. 1.

[i] *Locis cit. c.* 17. *init.* [k] Ibid. c. 15. p. 267.

[l] Ibid. c. 16. p. 277. Tavernier went to viſit theſe mines in 1665.

[m] See ſupra, p. 116.

If

If we ſee very little relation between the countries I have ſhewn, and thoſe from which the ancients obtained their diamonds, we ſhall find ſtill leſs reſemblance between the properties they attribute to theſe ſtones, and thoſe we now find in them. According to Pliny, the diamond reſiſted the hammer, and even made the anvil ſhake on which they beat it [n]. They looked upon it as a piece of luck to be able to break it [o], and it was not poſſible to do it but by ſoftening it in hot goats blood, into which they put it to ſteep [p]. We do not find any of theſe properties in our diamonds. Their hardneſs is not ſo great, but they will be broke by the hammer as often as you will put them to the proof. They are broken, and even bruiſed very eaſily. With regard to the goats blood, we ſhould try in vain to ſoften our diamond with that receipt; we can only work it with its own powder; that is the only agent that will take hold of this ſtone.

And I am perſuaded, moreover, that it has been the ſame in all ages. If we find any difference between our diamonds and thoſe of the ancients, it is becauſe all that they have ſaid on this ſubject is romantic, and little to be depended upon. Theſe inaccuracies are a further proof of the little knowledge they had in antiquity of this precious ſtone.

The ſame defects take place in almoſt all that the ancients have written on precious ſtones [q]. If we were to depend upon what they have written, for example, about emeralds, we muſt ſay that they knew a ſpecies different from ours, and which we have not. They reckon twelve ſorts of theſe precious ſtones, which they diſtinguiſh by the names of the kingdoms or provinces from whence they believed they were got. I ſhall not ſtop to give the particulars of them, we m y ſay, that, ac-

[n] L. 37. ſect.

[o] *Et cum feliciter rumpere contingit*, &c. ibid. p. 733. See alſo Senec. de conſtant. ſapient. c. 3. t. 1. p. 395.

[p] Plin. p. 733.; Paul. l. 8. c. 18. p. 636.

[q] See Diod. l. 3. p. 206.; Strab. l. 16. p. 1115.

[r] L. 37. ſect. 76.

cording to this author, the emeralds of Scythia and Egypt were the moſt eſteemed [r].

We at preſent only know two ſorts of emeralds, the oriental and occidental. Some authors have added a third, which they call the emerald of the old rock [s]. They are much divided about the places from whence theſe precious ſtones come to us. According to Herbelot, it is in the neighbourhood of Aſuan, a town ſituated in the Upper Egypt, that they find the only mine of oriental emeralds known in the whole world [t]. But there is room to doubt of this fact. It is certain that we ſtill find in Egypt many emerald mines; but beſides that their colour is not beautiful, they are ſo ſoft that it is not poſſible to work them [x]. According to Tavernier, Peru is the only place from whence emeralds come: he affirms that the eaſt never produced any [y], and he is not ſingular in his opinion [z]. Chardin, on the contrary, ſays, that they now get them in Pegu, in the kingdom of Golconda, and on the coaſt of Coromandel [a]. We may add the kingdom of Calcutta and the iſle of Ceylon, where Pyrard aſſures us they find many, and thoſe moſt beautiful [b]. With regard to emeralds of the old rock, Chardin ſays he has ſeen in Perſia many of this ſort, which they told him came from an ancient mine in Egypt, the knowledge of which is at preſent loſt [c].

In fact, it is very dubious whether we know at preſent any of the twelve ſorts of emeralds named by the ancients. For it is very problematical as to thoſe at preſent got from the eaſt, many perſons believing they only come from America.

We no longer find the qualities in our emeralds, which the ancients attributed to ſome of theſe ſtones. Pliny affirms, that the emeralds of Scythia and Egypt were ſo hard

[r] Plin. ſect. 17.
[s] Mercure Indien. c. 7. p. 18.; Taver. part. 2. l. 2. c. 10. p. 228.
[t] Bibl. orient. voce *Aſuan*, p. 141.
[x] Maillet, deſcript. de l' Egypte, p. 307. & 318.
[y] Second part. l. 2. c. 19. p. 293. & 294.
[z] See le Mercure Indien. c. 7. [a] T. 4. p. 72.
[b] Voyage de F. Pyrard part. 1. p. 286. part. 2. p. 89.
[c] T. 2. p. 239. T. 4. p. 69. & 72.

that

that they could not be worked [d]. On the contrary, we have no ſtone more tender nor which ſcratches more eaſily; 'tis for this reaſon that they do not often riſk the ingraving it. An artiſt who has not a ſteady hand, is in perpetual danger of rubbing off the brilliant angles *. Beſides, we cannot comprehend on what was founded the obſervation of Pliny, that in general it was not allowed to ingrave on the emerald [e]. Ancient hiſtory ſays quite the contrary. The ring which Polycrates, tyrant of Samos, threw into the ſea, and which was afterwards found again in the belly of a fiſh, was an emerald ingraved by Theodorus, a celebrated artiſt of antiquity [f]. Theophraſtus alſo relates that many perſons uſed to have emerald ſeals to pleaſe the ſight [g]. Laſtly, Pliny himſelf had before him many examples of theſe ſtones ingraved [h].

The ancients have thought proper to propagate many tales about emeralds. They ſay, that, in the iſle of Cyprus, there was on the ſea-ſhore a lion of marble whoſe eyes were of emeralds. Theſe ſtones they pretend were ſo lively, that their luſtre penetrated to the bottom of the ſea. The tunny fiſh were frightened by them, and deſerted that ſhore. The fiſhermen not knowing what to attribute this accident to, ſuſpected that it might be occaſioned by the emeralds of which the eyes of the lion in queſtion were made. They took them away, and immediately the fiſhes returned in as greaty plenty as before [i].

Herodotus aſſures us that he had ſeen in the temple of Hercules, at Tyre, a column of only one emerald which gave a very great light at night [k]. Theophraſtus reports, from the Egyptian annals, but without appearing to give

[d] L. 37. ſect. 16.

* See Mariette traité des pierres, t. 1. p. 166.

[e] *Loco ſupra, cit.* [f] Herod. lib. 3. n. 41.; Paul. l. 8. c. 14. [g] De lapid. p. 394.

[h] See l. 37. ſect. 3. p. 765. [i] Plin. l. 37. ſect. 17. p. 775.

[k] L. 2. n. 44.

Theophraſtus, who ſpeaks of this column, adds, that it was very large; but does not ſay that it ſpread a light in the night; beſides, he ſuſpects that perhaps it was not a true emerald, but a baſtard ſtone, a falſe emerald. *De lapid. p.* 394. *&* 399.

much credit to them, that a king of Babylon had made a preſent to a king of Egypt, of an emerald four cubits long and three broad [l]. He, adds that the Egyptians boaſted alſo of having in their temple of Jupiter an obeliſk of forty cubits in height and four in breadth, compoſed of four emeralds [m]. Another writer pretends, that, in his time, they ſtill had in the labyrinth of Egypt a coloſſal ſtatue of the god Serapis, nine cubits high, which was only of one emerald [n]. Cedrenus laſtly aſſures us, that, in the reign of the Emperor Theodoſius, they ſaw at Conſtantinople a ſtatue of Minerva of one emerald four cubits high. This was, ſay they, a preſent made formerly by Seſoſtris to the King of the Lydians [o]. Tradition alſo ſays that Hermes Triſmegiſtus had graved upon one of theſe ſtones the proceſs for the great work, and had it buried with him [p]. Without doubt theſe relations appear very fabulous and greatly exaggerated. We ſhould be tempted, at firſt ſight, abſolutely to reject them. But yet let us examine what could produce them, and what could have been the foundation of them.

I know not at preſent of any emeralds in any place of the ſize of thoſe I have mentioned, nor even that come near them. They ſhew, it is true, at Genoa a vaſe of a conſiderable ſize, which they pretend is an emerald. But I think I have ſtrong reaſons to doubt whether it be truly a fine ſtone [q]: I ſhall therefore range it in the claſs of thoſe works to which they have improperly given the name of emerald [r]. But whence comes the error? what can have occaſioned it? 'Tis about this I am going to propoſe ſome conjectures.

We might ſay that all the aſtoniſhing works of which I

[l] Ibid. p. 394. [m] Ibid.

[n] Apion. apud. Plin. l. 37. ſect. 19. p. 776.

[o] Page 362.

[p] This is what the alchymiſts call even at this time the *emerald table*. See Conringius de Hermet. Med. l. 1. c. 3. p. 31.; Fabricius, bibl. Gr. t. 1. l. 1. c. 10. p. 68.

[q] This vaſe is full of blaſts and bubbles, a proof that it is only coloured glaſs. Mercure de France, Aout 1757. p. 149. & 150.

[r] See l'Eſcarbot hiſt. de la N. France, p. 817.; Le Mercure Indien. c. 7. p. 21.; Journ. des ſcav. Nov. 1685. p. 282.

have

have ſpoken, were made of that ſpecies of ſtone called *baſe emerald.* It is found in pieces of a conſiderable ſize; we may have ſeen tables of a very great extent. This explication is not abſolutely without probability, and in ſome ſort would clear up the difficulty. But I prefer the following one.

The art of making glaſs is a diſcovery which goes back to very remote antiquity. The ancients uſed to work and caſt pieces much more conſiderable than we do at preſent. I ſhall only give for example thoſe columns of glaſs with which the theatre built by the care of Scaurus was ornamented [r]. The ancients knew likewiſe the art of giving to glaſs all ſorts of colours [s]. I ſhould think then that thoſe aſtoniſhing works which Herodotus, Pliny, and the other authors ſay were of emerald, were only coloured glaſs. The facts, by this means, become probable. By this hypotheſis, it is eaſy, for example, to explain the particularities of the column which was ſeen in the temple of Hercules of Tyre. Herodotus ſays it was of emerald, and that it gave at night a great light [t]. Now, in my opinion, it was a column of glaſs, of the colour of an emerald. It might be hollow, and they might put lamps within which would make it look luminous during the night.

I find in an ancient author a fact which confirms perfectly the explication I propoſe. We read in the ſeventh book of the recognitions of Saint Clement [u], that St Peter was deſired to go into a temple in the iſle of Arad *, to ſee there a work worthy of admiration. Theſe were columns of glaſs of an extraordinary height and ſize. Is it not probable that Herodotus meant ſome ſuch work as this? But the Greeks, inſtead of ſpeaking juſt the fact, have, according to their cuſtom, imagined a column of emerald, which ſhone during the night. Let us add likewiſe, that it might happen that Herodotus was deceived by the artifice of the Tyrian prieſts.

[r] Plin. l. 36. ſect. 24. p. 744. [s] Ibid. ſect. 66. 67. & l. 37. ſect. 26.
[t] L. 2. n. 44.
[u] N. 12. t. 1. p. 555. apud patres apoſtolic. edit. Antuerp. 1698. in fol.
* It was in this iſle that the Tyre of which Herodotus ſpeaks was built.

I will ſay no more on this ſubject. I even perceive I have dwelt perhaps too long upon it. Yet I hope to be eaſily forgiven theſe little digreſſions I have fallen into. I thought it would be allowed me more freely, as it is the only time I ſhall have to treat of this matter.

CHAP. III.

Of Architecture.

THE art of building comprehends many objects, and includes many parts which make ſo many diſtinct claſſes ſeparated from each other. We may conſider architecture either with relation to ſolidity and the boldneſs of the deſign, or on the ſcore of regularity, of elegance, of taſte, and the magnificence of buildings. I could only give conjectures of the ſtate and progreſs of this art in the firſt part of my work. There remain too few particulars of what happened in that remote antiquity to form any judgment upon it. We are abſolutely ignorant of the taſte which reigned then in buildings.

We find, in the ages we are now examining, facts which relate to the different parts of architecture. By the expoſure which I am going to make, the reader will judge of the progreſs of this art, and of the rapid improvements which the Egyptians and the people of Aſia Minor had made in it. We ſhall begin with the Egyptians. Their monuments are the firſt in date, in the ſpace of time which makes the ſubject of this ſecond part of our work.

ARTICLE I.

Of the ſtate of architecture among the Egyptians.

WE have ſeen, in the preceding books, that the origin of arts was very ancient in Egypt *. The works of which I am going to give an account would prove it, independently

* Part 1. book 2.

dependently of the teſtimony of hiſtorians. How indeed could the Egyptians have executed them, at the times we are now conſidering, without a prior knowledge of more and different inventions?

Seſoſtris, whoſe reign falls about the beginning of the ages we are now running over, deſerves for many reaſons to be ranked among the moſt famous monarchs of antiquity. This prince, after having employed the firſt years of his reign to over-run and conquer a vaſt extent of country, gave himſelf up ever afterwards to find out ways to make his kingdom flouriſhing. Equally great in peace and war, he ſignalized his leiſure by monuments whoſe duration will greatly outlive his conqueſts.

The different countries where Seſoſtris had carried his arms, enabled him to make many diſcoveries. He made uſe of them to enrich Egypt with many very uſeful inventions [b]. This prince undertook works of very difficult execution and of a prodigious expenſe. The object of theſe labours, by immortalizing the name of Seſoſtris, was to contribute alſo to the ſecurity and utility of Egypt.

The firſt care of this monarch, was to find out the means of putting his kingdom in ſafety from all incurſions. Egypt was open on the eaſt ſide. Seſoſtris raiſed a wall in that part, which extended from Peluſus to Heliopolis, which is about 1500 ſtadia [c]. He afterwards cut divers canals, ſome to water the lands [d], the others for the eaſe and intercourſe of commerce from town to town, and for facilitating the carriage of merchandiſe [e]. The want of water fit for drinking is at this time one of the greateſt inconveniencies to which Egypt is ſubjected [f]. Seſoſtris had remedied it. He had directed his works in ſuch a manner, that the towns moſt

[b] Diod. l. 1. p. 65.; Athenod. apud Clem. Alex. cohort. *ad* Gent. p. 43. Athenodorus might be in the right in ſaying, that the conqueſts of Seſoſtris gave to this prince the means of bringing into Egypt many able workmen. But when he adds, that it was from Greece that theſe workmen came, we ſee very plainly it is a Greek who ſpeaks, and who, right or wrong, would extol his nation. The Greeks in the time of Seſoſtris were too unpoliſhed to have any able artiſts among them.

[c] Diod. l. 1. p. 67. [d] Chap. 1. [e] Diod. l. 1. p. 66.

[f] Maillet. deſcript. de l'Egypte, lettr. 1. p. 16.

diſtant

diſtant from the Nile never wanted water, or the means of getting it eaſily [g].

According to ſome authors, Seſoſtris had projected the junction of the Red ſea with the Mediterranean, by a canal which coming from the Red ſea ſhould fall into the Nile [h]. But the enterpriſe was not finiſhed. They pretend, that the apprehenſion of laying Egypt under water, or, at leaſt, the corrupting the waters of the Nile by the mixture of the waters of the ſea, deterred Seſoſtris from this project [i]. This motive might have ſome foundation. It is ſince believed, that they were aſſured, that the level of the Red ſea was much higher than the lands of Egypt [k]. Some modern geographers are of the ſame opinion [l]. Others, at the head of whom we may place Strabo, think otherwiſe [m]. What is certain, is, ſay they, that the canal projected by many ſovereigns of Egypt, has never been executed [n].

The many canals which Seſoſtris cauſed to be made, were not the only works he undertook for the emolument of Egypt. The kings his predeceſſors were content to oppoſe the inundations of the Nile by banks which hindered the waters from ſpreading farther than need required. But theſe precautions were not ſufficient. As the land of Egypt is flat and level, if it happened, that the Nile broke its banks, moſt of the towns and their inhabitants were expoſed to be overflowed. To prevent this accident, Seſoſtris cauſed terraſſes to be raiſed in many places, of a conſiderable height and breadth. He ordered the inhabitants of all the towns, to whom nature had not furniſhed the like ramparts, to leave them and go and build houſes on the cauſeys, which he had cauſed to be made, to the end that they and their flocks might be ſheltered from the floods [o].

Theſe towns raiſed with immenſe labours, and riſing like

[g] Herod. l. 2. n. 108. [h] Marſham, p. 376. [i] Ibid. [k] Ibid.
[l] Buffon, hiſt. nat. t. 1. p. 104. & 391.
[m] Strabo, l. 17. p. 1158.; Riccioli Almageſt. t. 1. p. 728.; Fournier, hydrograph. l. 18. c. 9. p. 605.; Journal des ſcav. Fevr. 1668. p. 21. See alſo la rem. du P. Hardouin, ad Plin. l. 6. ſect. 35. p. 341. note 4.
[n] See les mem. de Trev. Juillet 1705. p. 1257. &c.
[o] Herod. l. 2. n. 137.; Diod. l. 1. p. 66.

iſlands

iſlands in the middle of the waters, formed, at the time of the inundation, the moſt beautiful, and, I dare ſay, the moſt uncommon ſight that one can imagine. Egypt then changed into a large ſea, offered to the view an immenſe extent of water interſperſed with an infinity of towns and villages [p]. Though at this time it is reduced to a quite different ſtate from what it was formerly, yet one ſtill has the ſame proſpect. All travellers ſpeak with admiration of the picture which Egypt preſents at the time of the inundation [q].

The works I have given an account of, depend more or leſs on architecture; thoſe which I have to ſpeak of appertain more directly to that art. Seſoſtris did not only employ himſelf in works that might contribute to the ſecurity and conveniency of Egypt, he raiſed alſo many monuments to embelliſh and decorate his kingdom. This prince cauſed to be built in each town, temples in honour of the divinity that was particularly reverenced there [r]. That of Vulcan was the moſt remarkable. The ſtones which they uſed for the conſtruction of that edifice, were of an enormous ſize [s]. But indeed this is all we can ſay of the magnificence of that temple. We know not what were the dimenſions, the proportions, and the ornaments.

The tabernacle ſet up by the Iſraelites in the deſert, may nevertheleſs give ſome ideas of the manner in which at that time the Egyptian temples were conſtructed. I believe really, that there muſt have been ſome relation between the taſte which reigned in theſe edifices and the tabernacle *. It is true, ſtrictly ſpeaking, this work ought not to be looked upon as a piece of architecture; it was only, to ſpeak properly, a vaſt tent: this is the firſt idea it offers to the mind; but by reflecting on it more attentively, we ſhall perceive, that the tabernacle had a great relation with architecture. We ought to look upon it as a repreſentation of the temples and palaces of the eaſt. Let us recollect what

[p] Herod. l. 2. n. 97.; Diod. l. 1. p. 43.; Strabo, l. 15. p. 1014. l. 17. p. 1137.; Seneca, nat. quaeſt. l. 4. c. 2. t. 2. p. 750.

[q] Maillet, deſcript. de l'Egypte, lettr. 2. p. 70. [r] Diod. l. 1. p. 65. & 66.

[s] Herod. l. 2. n. 108.

* This is alſo the ſentiment of Father Calmet, t. 2. p. 391.

we have ſaid before of the form of government of the Hebrews. The Supreme Being was equally their God and King [t]. The tabernacle was erected with a view to anſwer to that double title. It ſerved at once for the temple and palace. The Iſraelites went there ſometimes to adore the Almighty, and ſometimes to receive the orders of their ſovereign, preſent in a ſenſible manner in the midſt of his people [u].

I think then we ought to look upon the tabernacle as a work which God would have that the ſtructure ſhould have relation with the edifices deſtined in the eaſt, whether for the worſhip of the gods, or the habitation of kings [x]. From theſe ideas we may ſay it was then the cuſtom to ornament theſe monuments with columns variouſly worked and enriched. There were many in the tabernacle ſupported on baſes of ſilver or copper, and ſurmounted with chapiters of gold and ſilver [y]. The ſhaft of theſe columns was of precious wood covered with plates of gold and ſilver [z]. The whole conſtruction of the tabernacle preſented, moreover, the model of an edifice regular and diſtributed with much ſkill. All the dimenſions and proportions appear to have been obſerved with care and perfectly well adapted.

The inductions which we may draw from the deſcription of this monument, are moreover the only lights that hiſtory affords on the architecture of the Egyptian temples for the ages we are ſpeaking of at preſent. I ſhall ſpeak more particularly of theſe edifices in the third part of this work. Let us return to Seſoſtris.

That prince further ſignalized his reign by the erection of two obeliſks, which were cut with a deſign to acquaint poſterity of the extent of his power, and the number of nations he had conquered [a]. Theſe monuments were of

[t] See ſupra, b. 1. ch. 2.

[u] And let them make me a ſanctuary, that I may dwell amongſt them. Exod. c. 25. v. 8.

[x] See Calmet, t. 2. p. 391. & 393.

[y] Exod. c. 26. v. 32. c. 27. v. 17.

[z] Exod. c. 26. v. 32. c. 27. v. 17.

[a] Diod. l. 1. p. 67.

one

one piece of granite, and were an hundred and eighty feet high [b]. Auguſtus, according to the report of Pliny, tranſported one of theſe obeliſks to Rome, and placed it in the campus Martius [c]. They pretend to have found it in our times *.

A remark which we ought not to omit, is, that Seſoſtris did not employ any Egyptian in the conſtruction of theſe difficult works of which I have juſt ſpoken. He only made the priſoners work whom he had brought from his expeditions [d]. To the end that poſterity ſhould not be ignorant of it, he took care to have ingraved on all theſe monuments, that no native of the country had ever put his hand to them [e].

Of all the works of which I have ſpoken I ſee none more worthy of attention than the obeliſks. According to Pliny, the idea of that ſpecies of monuments is due to the Egyptians. He ſays, that a king of Heliopolis called Meſtres, was the firſt who cauſed one to be raiſed [f]. We are ignorant at what time this prince lived. Yet I believe him poſterior to Seſoſtris, and even his ſucceſſor. In reality, what Pliny reports of the motive which engaged this Meſtres to build an obeliſk, agrees very much with what other hiſtorians have related of the ſucceſſor of Seſoſtris [g]. I preſume then, that Pliny was miſtaken, and,

[b] Diod. l. 1. p. 67.

[c] L. 36. ſect. 14. p. 736.

* Yet this preſents us with a great difficulty. This obeliſk, according to the meaſures they have taken, is only about 75 feet, inſtead of 180 which Diodorus gives to the monuments of Seſoſtris. See les mem. de Trev. Mai 1751. p. 979. But I doubt, 1. with many critics, whether this obeliſk was one of thoſe of which Diodorus ſpeaks. We might ſay, in the 2d place, that ſuppoſing it the ſame work, the ravages of Cambyſes might ſo ruin theſe ancient monuments, that they muſt afterwards be diminiſhed by repairing them. This laſt reaſon appears to me very plauſible.

[d] Herod. l. 2. n. 108.

[e] Diod. l. 1. p. 66.

Scripture remarks ſomething like this in ſpeaking of the buildings of Solomon. 2 Chron. c. 8. v. 9.

[f] L. 36. ſect. 14. p. 735.

[g] Compare Pliny, *loco cit.* with Herod. l. 2. n. 111.; Diod. l. 1. p. 69.; Iſidor. orig. l. 18. c. 31. p. 159.

that we ought to look upon Seſoſtris as the firſt who raiſed obeliſks *.

But further, it is perhaps neither to one nor the other of theſe two princes that we ought to attribute the invention of that ſort of monument. Diodorus ſpeaks of a pyramidal ſpire erected by the order of Semiramis on the road to Babylon. It was, ſays he, of one ſtone of one hundred and thirty feet; each ſide of the baſe, which was ſquared, was twenty-five [h]. It ſhould be then in Aſia, not in Egypt, that obeliſks took their riſe.

Be that as it will, the Egyptian monarchs appear to have had a great taſte for obeliſks. I ſhall not ſtop to give the names of all the ſovereigns who we know have raiſed them: we may ſee them in Pliny [i]. I will only ſpeak here of the obeliſks which deſerve a particular conſideration.

After the two obeliſks of Seſoſtris, of which I have already ſpoken, we may place that which his ſon got raiſed. It was tranſported to Rome by order of Caligula. The veſſel which this prince cauſed to be conſtructed for this enterpriſe, was the largeſt that had then been ſeen upon the ſeas [k]. All theſe obeliſks nevertheleſs did not come near to that which Rameſſes raiſed near the palace of Heliopolis. This prince reigned, according to the calculation of Pliny, at the time of the taking of Troy [l]. Twenty thouſand men were employed to work at this monument [m]. The greateſt difficulty was to raiſe it on its baſe. To make the fact more marvellous, they have not omitted to adorn it with a tale. Rameſſes apprehended, that

[g] This is alſo the ſentiment of Marſham, p. 369.

[h] L. 2. p. 125. & 126.

[i] L. 36. ſect. 14. &c.

[k] Ibid. p. 736. & l. 16. c. 40. p. 35.

[l] L. 36. ſect. 14. p. 735. Marſham, p. 441. makes Rameſſes much more modern; but it is in conſequence of an error into which that able chronologiſt has fallen with relation to Seſoſtris, whom he confounds with the Sezac of the ſcripture. As Marſham acknowledges Rameſſes for one of the ſucceſſors of Seſoſtris, he ought conſequently to have advanced his reign.

[m] *Plin. loco ſupra cit.* The text of Pliny in Father Hardouin's edition, makes 120,000 men.

It

that the machines which they had prepared were not capable of raiſing and ſupporting ſo unwieldy a maſs. The means which this prince invented to oblige the workmen to uſe all their ſkill, were certainly moſt extraordinary; he cauſed his ſon, ſay they, to be fixed on the top of the obeliſk. The life of this young prince, and of conſequence the lives of the workmen depending upon the ſucceſs of the enterpriſe, they took their meaſures ſo juſtly that they ſucceeded according to their wiſhes [n].

We ought to look upon this obeliſk as the moſt remarkable of all thoſe ſpoken of in hiſtory. It is one of the moſt valuable monuments which now remain of Egyptian antiquity [o]. It was reſpected even by Cambyſes, at the time when that furious prince put all to fire and ſword in Egypt, and who ſpared neither temples nor thoſe ſuperb monuments, which, entirely ruined as they are at this day, are ſtill the admiration of travellers. After having made himſelf maſter of Heliopolis, Cambyſes gave up the whole town to the flames; but when he ſaw the fire gain the obeliſk of Rameſſes, he ordered it immediately to be extinguiſhed [p].

We have before ſeen, that, after the conqueſt of Egypt, Auguſtus got many obeliſks tranſported to Rome; but he durſt not touch this [q]. Conſtantine more hardy undertook the enterpriſe: After the example of Caligula he made them build a veſſel of an extraordinary ſize, they had even already conducted it by the Nile to Alexandria [r]; but the death of this prince ſuſpended the execution of his project: it did not take place till the time of Conſtans his ſon. The obeliſk being brought to Rome, was placed in the circus with infinite labour and expenſe [s]. Afterwards it was

It was by means of this immenſe multitude of workmen, that the ancient people were able to raiſe in ſo ſhort a time the vaſt edifices whoſe execution appears to us at this time ſo aſtoniſhing.

[n] Plin. *loco cit.*

[o] See Marſh. p. 431.

[p] Plin. *loco cit.*

[q] Ammian. Marcell. l. 17. c. 4. p. 160. & 161.

[r] Ibid.

[s] See Marſh. p. 132.

thrown

thrown down. It was to the care of Pope Sixtus V. that Rome is indebted for the re-eſtabliſhment of this famous monument. What was moſt aſtoniſhing is, that this obeliſk, as well as that of Auguſtus, was broke in many pieces; yet they found the means of repairing them without impairing their beauty. It was the famous architect Dominique Fontana whom they charged with the care of repairing them. He directed all the operations of that important undertaking. We know that it was not without a great number of machines and ſingular precautions, they were able to erect them [r].

The obeliſks, without contradiction, are a ſpecies of monuments the moſt ſingular which now remain to us of antiquity. There have been found perſons who, at the ſight of theſe monſtrous maſſes, have ridiculouſly imagined, that nature had no part in them, that they were entirely the effect of art. Some have believed that the Egyptians had the ſecret of melting marble and ſtones in the ſame manner nearly that we run metals. Theſe columns, theſe obeliſks of one piece, and of an extraordinary height, give, ſay they, room to think that theſe pieces have been caſt and run into moulds as we run a piece of metal.

Others have thought that the obeliſks were a ſort of factitious ſtone compoſed of different flints pounded, cemented, and afterwards incorporated by means of ſome gum ſufficiently hard to bear the cutting and poliſhing. They alledge in proof of their ſentiment, that, in the whole world, we cannot find at this time a quarry where we can ſee blocks of ſuch a ſize. Further, add they, if one could find them, it would be impoſſible to draw them out, for example, a piece of the ſize of the obeliſk of Rameſſes, and ſtill more impoſſible to tranſport it. They propoſe likewiſe other objections which I ſhall not ſtop to relate [s].

Thoſe who reaſon thus, ſhew plainly that they have not

[r] See vita di Siſto V. da Greg. Leti, parte 3. l. 1. p. 4. &c. p. 22. &c.; ſee alſo Father Kirker, *de orig. & erectione obeliſcorum.*

[s] See Maillet, deſcription of Egypt, ſect. 9. p. 39. & 40.; Shaw's voyage, t. 2. p. 82.; Mem. de Trev. Juill. 1703. p. 1218. & 1219.; Traité de l'opinion, t. 6. p. 628.; Diarium Ital. P. Montfaucon, c. 17. p. 247.

acquired

acquired much knowledge in the arts. With reſpect to the firſt, who have imagined that the obeliſks had been melted and caſt like pieces of metal; they are apparently ignorant that marble and ſtones are not fuſible. There are only ſands and flints that are ſo. Moreover, could we even ſuppoſe that the Egyptians had had in this particular ſome ſecret unknown to us, are theſe perſons ignorant that the effect of fuſion is to vitrify theſe ſort of ſubſtances, and by conſequence to change them? Inſtead of the monuments of marble which we now ſee, this ſecret could only have produced monuments of glaſs.

As to thoſe who believe that the marble of the obeliſks was only a ſpecies of factitious ſtone, an aſſemblage of flints united and incorporated with cement; the objection is more ſpecious, but not more ſolid. Do they imagine it would be poſſible to form with maſtic, pieces of the ſize equal to that of the obeliſks, and of a hardneſs capable of reſiſting the injuries of ſo many ages as have paſſed ſince the erection of thoſe monuments? We know, it is true, of theſe ſorts of compoſitions able to bear the chiſel, and even ſuſceptible of poliſh. But experience has ſhewn that we have not yet found the art to make with maſtic, a compoſition ſufficiently hard and ſolid to reſiſt the action of the ſun in our climates, and by much greater reaſon in Egypt. Beſides, it is not neceſſary to have recourſe to all thoſe expedients to explain the manner in which the Egyptians have procured themſelves the enormous maſſes which ſerved for the conſtruction of their obeliſks.

Pliny informs us, that theſe people got from the mountains of the Upper Egypt, the granite which they uſed *. They have even diſcovered the quarry whence they preſume theſe obeliſks were cut. We there remark even at this day the matrices of theſe famous monuments. In that chain of mountains which bound Egypt on the weſt, and which run along the Nile towards the deſert, we find divers ſorts of marbles, and particularly of granite, the ſame which had been uſed for the obeliſks. We ſtill ſee in theſe places, ſay the tra-

* L. 36. ſect. 13. & 14. p. 735.

vellers,

vellers, columns half cut, and other pieces of marble ready to be detached from the mountains [y]. The inſpection of theſe quarries ſuffices to deſtroy the opinion of thoſe who imagine that the marbles which the Egyptians uſed for their monuments, were a compoſition of which the ſecret is loſt. Theſe pieces came from the hands of nature; art had no other part but the working [z].

As to the objections which they form on the impoſſibility of being able to cut ſuch maſſes, they ſuppoſe little knowledge of the natural hiſtory of Egypt. The quarries from whence the obeliſks were taken, have no reſemblance to the quarries in our countries. They were not obliged to dig the earth, and from thence extract theſe marbles. They found them on the ſides of that chain of mountains of which I have ſpoken [a]. They choſe a place which was ſloped, and nearly on a level with the higheſt riſing of the Nile. They there cut a piece of marble of the height and thickneſs they judged proper. I imagine, that the Egyptians proceeded in this work, near by the ſame manner that we proceed at preſent among us. On a hill ſituated in Lower Normandy, we find immenſe blocks of granite equal with the ſurface. They cut and raiſed them eaſily by digging into the entire maſs a trench of ſome inches depth, into which they afterwards drove, by force, wedges of iron which divided the ſtone almoſt as uniformly as if it had been ſeparated with a ſaw. They have wrought pieces five and forty feet long, eighteen wide, and ſix thick [b]. This expoſition ſuffices to make us comprehend with what facili-

[y] Obſervations de Belon, l. 2. c. 21. p. 210.; Maillet, deſcript. de l' Egypte, lettr. 8. p. 319. lettr. 9. p. 39. &c.; Granger voyage en Egypte, p. 76. & 77.; P. Lucas, t. 3. p. 159, &c.; Shaw's travels, t. 2. p. 81. & 82.; Rec. d' obſervations curieuſ. t. 3. p. 158.

[z] See Belon, obſervat. l. 2. c. 21. p. 210.; Mem. de Trev. Juill. 1703. p. 1219.; Diar. Ital. P. Montfaucon, c. 17. p. 247. M. Guettard has diſcovered in many diſtricts of France, banks of granite, from which we might get blocks fit for obeliſks ſtill more conſiderable than all thoſe of the Egyptians. Acad. des ſcien. ann. 1751. H. p. 11.--14. & 15.

[a] Plin. l. 36. ſect. 14. p. 735.; Maillet, deſcript. de l' Egypte, p. 306.; Granger, p. 98.

[b] Acad. des ſcien. *loco cit.* p. 15.

ty

ty the Egyptians might have cut their obeliſks. Accordingly the ancient authors who have ſpoke of them, have acknowledged, that the difficulty of removing and ſetting them on their baſe was, without compariſon, much more difficult than the cutting of them [c].

The Nile was of great uſe to the Egyptians for tranſporting theſe enormous maſſes. This river at its greateſt height flows to the foot of the mountains where they cut the obeliſks [d]. They drew a canal which ended at the place where the obeliſk was laid, and which even paſſed under the piece which they wanted to take away: for they took care that the breadth of the canal ſhould be ſo proportioned, that the obeliſk ſhould be ſupported by its two extremities on the earth, and form a bridge. After having eſtimated nearly what would be the weight of that maſs, they built, according to its weight, two floats which they put into the canal of which I have juſt ſpoken. They were conſtructed in ſuch a manner that the ſurface exceeded the height of the edge of the canal; they loaded thoſe floats with bricks to make them ſink conſiderably in the water, then they made it run under the obeliſk: when they were certain of this, they took away the bricks with which they had loaded it. Theſe rafts being thus lightened, raiſed themſelves to the ſurface of the canal, and took away the obeliſk [e]. They contrived afterwards to conduct it by water as near as poſſible to the place where they would have it erected. As Egypt was formerly cut with an infinity of canals, there were ſcarce any places where they could not eaſily convey theſe enormous maſſes, whoſe weight might have made any other ſort of machines give way except theſe floats. We can ſay nothing certain of the reſt of thoſe contrivances which they uſed to land them, to conduct them to the place where they were to be fixed, and to erect them on their baſe. The ancients have tranſmitted nothing to us on an object ſo curious and ſo important for mechanics *.

Beſides,

[c] Plin. l. 36. ſect. 14. p. 735.

[d] Maillet, p. 319. *loco cit.* [e] Plin. l. 36. ſect. 14. p. 735.

* We have at preſent an effort of art ſtill more ſurpriſing than the removing and

Beſides, we find that no other nation has ever been curious to imitate the Egyptians in their taſte for obeliſks: even the Romans do not appear to have regarded them. They contented themſelves with tranſporting into their capital, ſome of theſe enormous maſſes, rather, without doubt, for the ſingularity than for the real beauty of theſe monuments.

What we have ſeen of the magnificence and the taſte of the works executed by Seſoſtris, would make me believe, that this prince may very well have been the author of a great part of the ornaments of Thebes, that city ſo famous in antiquity. It is certain, that its foundation aſcends to ages very remote [f]: but it muſt have been ſome time before it could attain that degree of ſplendor and magnificence of which the ancients ſpeak. That interval, nevertheleſs, may not have been extremely conſiderable. At the time of the war of Troy, Thebes paſſed for the moſt opulent, and the beſt peopled city in the univerſe [g]. Theſe conſiderations engaged me to place in the ages we are now running over, what I have to ſay of this famous capital of Egypt. The ancients are not agreed about the circumference of Thebes [h]. Homer gives it an hundred gates;

and erection of the obeliſks. Theſe are the two ſtones which form the pediment of the Louvre. They are 52 feet long, 8 broad, and weigh each more than 80 thouſand weight. We may judge of the labour and pains that theſe two pieces muſt have coſt cutting. They muſt have been drawn from the bottom of the quarry, have been conveyed by land near two leagues, and placed at a height more than 120 feet from the level of the ground. Yet it was not ſo much on account of their weight as their form, that theſe two ſtones have been ſo difficult to raiſe. In fact, though they were 52 feet long and 8 broad, they were at moſt only 18 inches thick. This form expoſed them to be eaſily broken, if they had not been always equally ſupported during the time of their elevation. We may ſee in the tranſlation of Vitruvius by Perrault, the precautions which muſt be taken to avoid all the inconveniencies that might happen. p. 339. not. 4.

[f] See Marſh. p. 395. & 396.

[g] Iliad. l. 9. v. 381. *&c.*; Odyſſ. l. 4. v. 126. & 127. In compariſon of the cities of Aſia Minor and of Greece, which were then very ſmall.

[h] By Cato's account, it was 400 ſtadia long. *Apud* Steph. Byzant. *voce* Διοσπόλις, p. 240.

Diodorus, l. 1. p. 54. ſays, that the circuit of Thebes was 140 ſtadia.

According to Strabo, l. 17. p. 1170. the ruins of that city took up 80 ſtadia in length.

Euſtathius

gates[i]; an expreſſion, which certainly ought not to be taken literally; but which, however, means a very large and powerful city. He adds, that Thebes was able to furniſh twenty thouſand chariots of war[k]; by which we may judge of the number of inhabitants which it contained. It muſt have been by ſo much the more conſiderable as the houſes were four or five ſtories high[l]. Yet we ſhall never be perſuaded, that it roſe to that degree to which the Egyptians have made it amount. Ancient inſcriptions ſay in effect, that this city had included within its walls to the number of ſeven hundred thouſand fighting men[m]. P. Mela increaſing the number farther, makes them amount to a million[n]. We eaſily perceive how much ſuch exaggerations are out of the way and abſurd*: Herodotus only reckons forty-one thouſand fighting men in all Egypt[o].

Homer boaſts much of the opulence of Thebes[p]: and this is a point about which all antiquity ſeem to be agreed. The ancient authors aſſure us, that no city in the world ever contained ſo much riches and magnificence, in gold, in ſilver, in ivory, in precious ſtones, in coloſſal ſtatues, and in obeliſks of one piece[q]. We may judge of this from a fact reported by Diodorus. He ſays, that Seſoſtris offered to the god whom they adored at Thebes, a ſhip, built of

Euſtathius gives the greateſt extent to this capital of Egypt, of all the ancients. He ſays, that it was 420 ſtadia long. Ad Dionyſ. Perieget. v. 248.

According to the ſcholium of Didymus, on Iliad. 9. v. 383. the city of Thebes was 3700 arures in ſurface. We know, from the report of Herodotus, that the arure was 100 Egyptian cubits complete, that is to ſay, ten thouſand ſquare Egyptian cubits; and the Egyptian cubit, which, by the confeſſion of the greateſt part of the learned, ſtill ſubſiſts at this time under the name of *Derah*, without having received any alteration, is one foot eight inches, $5\frac{8}{8}\frac{1}{0}$ royal lines. Thus, the ſurface of the city of Thebes was from 2997825 to 2997826 ſquare fathoms. That of the city of Paris contains, according to Deliſle, 4100337; from whence it reſults, that ancient Thebes was only a little more than three fourths of Paris.

[i] Iliad. l. 9. v. 383. [k] Ibid. [l] Diod. l. 1. p. 54.

[m] Tacit. annal. l. 2. c. 60. [n] L. 1. c. 9.

* They muſt ſuppoſe from five to ſix millions of inhabitants in Thebes. They only reckon in Paris about ſix hundred and fifty thouſand.

[o] L. 2. n. 164. *&c.* [p] Diod. *loco cit.* [q] Ibid. l. 1. p. 55.

cedar, two hundred and eighty cubits long *, covered on the inſide with plates of ſilver, on the outſide with plates of gold [r].

There remain, in other reſpects, few particulars of the magnificence Thebes formerly had. Diodorus ſpeaks of four temples which were diſtinguiſhed above all the reſt. The moſt ancient was, ſays he, a wonder in grandeur and beauty. This edifice was thirteen ſtadia about †, and forty-five cubits high. Its walls were twenty-four feet thick. All the ornaments of this temple, both by the richneſs of the materials, and by the grandeur of the work, anſwered to the majeſty of that edifice, which ſtill ſubſiſted at the time in which Diodorus was in Egypt [s].

This is all we can collect from the ancients on the ſubject of Thebes. With reſpect to the modern travellers, they agree to ſay, that this city exhibits at preſent only a great heap of ruins [t]. But they ſpeak of many monuments which ſtill remain in its neighbourhood. I think that it will not be troubleſome to compare their accounts with what the ancients have ſaid of the grand edifices built in the plains of Thebes.

Diodorus acquaints us, that it was in the neighbourhood of that capital, that they had raiſed thoſe celebrated tombs of the ancient kings of Egypt, which nothing, as he has ſaid, equalled in magnificence. The Egyptian hiſtories make mention of forty-ſeven of theſe tombs. At the time of Diodorus, there only remained ſeventeen, of which many were then almoſt deſtroyed [u]. That hiſtorian has

* Two hundred and eighty great cubits, are equal to four hundred and one feet ſix lines, French meaſure.

† That is, more than half a league.

[r] Diod. l. 1. p. 67. This fact appears amongſt the moſt exaggerated.

[s] Diod. l. 1. p. 55. It remains to know, if this temple was really the moſt ancient of all thoſe which Thebes contained; and if this edifice had been brought at its foundation to the point of magnificence of which Diodorus ſpeaks.

[t] P. Lucas, third voyage, t. 3. p. 148.; Sicard, mem. des miſſions du Levant, t. 7. p. 159.; Granger, voyage d'Egypte, p. 54.

[u] L. 1. p. 56. about thirty years before Chriſt. If we believe Father Sicard, there ſtill ſubſiſt ten, five entire, and five half ruined. *Mem. des miſſ. du Lev. t. 7. p.* 162.

preſerved

preſerved a deſcription which an ancient Greek traveller had left of one of theſe mauſoleums, a monument, which, I think, owed its conſtruction to one of the ſucceſſors of Seſoſtris. The prince of whom we ſpeak was called Oſymandes *. We ſhall have occaſion, in the following book, to examine into the epocha of his reign, which falls about the time of the war of Troy. Let us return to the deſcription of his tomb.

At the entrance of this edifice appeared a veſtibule of two hundred feet long and ſixty-ſeven and an half high. The moſt rich marbles had been uſed in its conſtruction. Afterwards was found a ſquare periſtyle, of which each ſide was four hundred feet long. Figures of animals, ill worked, but each of one ſtone, and ſixteen cubits high, were in the place of columns, and ſupported the ceiling, made with ſtones which were twelve feet long. Its whole length was covered with ſtars of gold, deſigned on a ground of ſky-blue. Beyond this periſtyle, is found a ſecond veſtibule, built like the former; but more adorned with ſculptures. The eyes are there immediately ſtruck with three coloſſal figures, made from one ſingle block. The principal is that of the monarch who had built the monument. He is repreſented ſitting. This ſtatue paſſed for the largeſt coloſſus which they had in Egypt. It muſt have been at leaſt fifty feet high *. All this piece was, ſay they, leſs eſtimable for its enormous ſize, than for the beauty of the work, and the choice of the ſtone, which, in ſuch a ſize, did not preſent the leaſt defect or the leaſt ſpot.

From this veſtibule we paſſed into another periſtyle, much more beautiful than the firſt which I have deſcribed. All the walls were loaded with a multitude of ſculptures in niches, repreſenting the military exploits of Oſymandes.

* Diod. l. 1. p. 56

* They had only meaſured the foot, which was found to be a little more than ſeven cubits. The foot of a man is the ſixth part of his height. So the ſtatue of which we are ſpeaking, muſt have been more than forty-two cubits, or ſixty-three feet high, if Oſymandes had been repreſented ſtanding. But as he was repreſented ſitting, we muſt abate a fifth for the length of the thighs, and there ſtill remain more than $33\frac{1}{3}$ cubits, or $5\text{-}\frac{1}{2}$ feet.

In

In the middle of this periſtyle they had raiſed an altar of moſt beautiful marble, of ſurpriſing grandeur and immenſe workmanſhip. At the bottom, they had placed againſt the wall two ſtatues, each of one block, twenty-ſeven cubits high. They repreſented perſons ſitting.

They went out of this periſtyle by three gates, among which were placed the ſtatues I have ſpoken of, to enter into a hall whoſe ceiling was ſupported by high columns. It much reſembled an amphitheatre, and was two hundred feet ſquare. This place was filled with an infinity of figures in wood, which repreſented a grand audience attentive to the deciſions of a ſenate, taken up, as it ſeems, with adminiſtering juſtice. The judges, to the number of thirty, were placed on a bench much elevated, leaning againſt one of the fronts of the body of the building of which we ſpeak.

From this place they paſſed through a gallery flanked on the right and on the left, with many cabinets, in which were ſeen repreſented on tables, all the different meats which could flatter the taſte. In this ſame gallery, the monarch, author of the ſuperb edifice of which I ſpeak, appeared proſtrate at the feet of Oſiris, offering ſacrifices to him. Another body of the building included the ſacred library, near to which were placed the images of all the gods of Egypt, the king preſenting to each the proper offerings. Beyond this library, and on the ſame line, they had raiſed a great hall, the entry of which contained twenty beds, on which the ſtatues of Jupiter, Juno, and Oſymandes were ſeen lying. They believed that the body of that monarch lies in that part of the edifice. Many buildings were joined to this laſt hall; and they had there placed repreſentations of all the animals ſacred in Egypt.

They aſcended, laſtly, to a place which formed, to ſpeak properly, the tomb of the Egyptian monarch. There was ſeen a circle or crown of gold, a cubit in thickneſs, and three hundred and ſixty-five in circumference. Cambyſes, when he pillaged Egypt, they ſay, took away this valuable piece [y].

[y] Diod. *loco ſupra cit.*

Such

Such was, according to the ancient authors, the mauſoleum of Oſymandes *, on which at preſent I ſhall make no reflection. All the modern travellers who have had occaſion to viſit the places where they preſume that Thebes was built, atteſt to have ſeen in its neighbourhood many edifices, among which they remark, in ſpite of the injury and ravage of time, great reſemblance with the monument which I have deſcribed. Here is what we read on this ſubject in Paul Lucas, who has taken, as far as one can judge, the ruins of a palace for thoſe of a temple, an error common to him with almoſt all modern travellers.

" Near Andera, a village, which I think was not far " diſtant from ancient Thebes, although ſituate on the " other ſide of the Nile †, we perceive the ruins of a pa- " lace the moſt ſpacious and the moſt magnificent that " can be imagined. This edifice is built wholly of gray " granite; the walls are all covered with baſs reliefs larger " than life ‡. The grand front of this palace offers at firſt " a veſtibule ſupported with grand ſquare pilaſters of an a- " ſtoniſhing thickneſs. A long periſtyle, formed by " three ranks of columns, that ſcarce eight men could " fathom, extend along the two ſides of the veſtibule, and " ſupport a ceiling made of ſtones of ſix or ſeven feet in " breadth, and of an extraordinary length. This ceiling " ſeems to have been originally painted: there we yet " perceive the remains of colours which time has ſpared. " A long cornice runs above all the columns of this edifice.

* Let us remark that Diodorus has taken all this recital from Hecatæus, a writer abſolutely decried, even among the ancients, for his lies and his exaggerations.

† Strabo acquaints us that the boundaries of Thebes extended on both ſides of the Nile, l. 17. p. 1170.

Father Sicard places the tombs of the kings of Thebes to the weſt of the Nile, on the ſame ſide on which the village of Andera is ſituated. *Mem. des miſſ. du Levant, t. 7. p. 161. 162.*

‡ Paul Lucas has either expreſſed himſelf very ill in uſing the term *bas reliefs* to deſign the ſculptures of the palace of Andera, or this monument is not of great antiquity; for the ancient inhabitants of Egypt never knew to work *bas reliefs*: they only knew how to ingrave; this is a fact which all the monuments of ancient Egypt, joined to the teſtimony of all the ancient writers, do not permit us to doubt of.

" Each

" Each is mounted with a chapiter compoſed of four wo-
" mens heads dreſſed very ſingularly and back to back.
" Theſe four faces reſemble very much the manner in
" which they repreſent the two heads of Janus: their
" thickneſs is proportioned to the ſize of the columns
" which ſupport them. Theſe four heads are, moreover,
" crowned each with a cube about ſix feet which ſupports
" the ceiling. This ſort of cornice which runs all along the
" periſtyle, is of a very ſingular conſtruction: on the mid-
" dle of the portico, which ſerves for an entrance to the
" whole edifice, are ſeen two large ſerpents twiſted toge-
" ther, whoſe heads reſt on two large wings extended on
" both ſides.

" From this veſtibule you immediately enter into a large
" ſquare hall, where we ſee three doors which lead to dif-
" ferent apartments: theſe firſt apartments lead to o-
" thers alike ſupported by many large columns. The roof
" of the edifice is a terraſs; and to judge of the ſize, it
" ſuffices to ſay the Arabians had formerly built upon it
" a very large village of which we ſtill ſee the ruins *.
" We cannot, however, exactly determine of how many
" bodies of building this edifice was compoſed; for we
" find, at ſome diſtance from the front, a grand
" building which appears to have been the entrance: it
" is more than forty feet high. Thirty paces from this we
" meet, on each ſide, with two other buildings whoſe gates
" are almoſt fallen to ruins. We there ſtill remark many
" apartments †." This monument, as repreſented by Paul Lucas, appears to have much reſemblance with the mauſoleum of Oſymandes.

Paul Lucas is not the only one who has ſpoken of this ſuperb edifice; M. Granger, a traveller, whoſe exactneſs and diſcernment I have already had occaſion to commend ‡, has made a deſcription, which, although infinitely more exact and much more circumſtantial, yet differs

* I ſuſpect great exaggeration in this fact.
† Third voyage of Paul Lucas, t. 3. p. 37. &c.
‡ Supra, chap. 1. p. 90.

very

very little from that we have juſt read: he thinks that this edifice is a temple of Iſis.

"The firſt object," ſays he, "which offers itſelf to our "view is a portico of ſixty feet high, thirty-ſix feet broad, "and ſeventy-one thick, embelliſhed with a beautiful cor- "nice, and a fillet goes round it; below which and im- "mediately over the gate, which is twenty feet high and "ten wide, we ſee a ſort of eſcutcheon compoſed of a "globe, ſupported by two kind of eel pouts, placed on an "azure field in the manner of two extended wings. This "portico is all covered from the top to the bottom with "hieroglyphic inſcriptions *. From this gate we enter "into a very ſpacious court full of the remains of co- "lumns: oppoſite to the temple, which is in the middle of "this court, we find twelve other pillars ſtanding, which "ſupport the reſt of the ceiling.

"The front of the temple is 129 feet long, 82 wide, "and 70 high: the back part 170 feet long, 108 broad; "and the height is the ſame with that of the front. The "walls without are covered from the top to the bottom, "with the Egyptian divinities in bas relief, and hierogly- "phic characters; a moſt beautiful cornice goes round "the whole: eight lions heads form gutters.

"We immediately enter into a grand hall, which is "112 feet long, 60 high, and 58 broad. The ceiling is "ſupported by ſix rows of four pillars each. The ſhaft of "theſe columns is 52 feet, and their circumference 23: "the chapiters of theſe columns are formed by four wo- "mens heads, with their backs to each other. The walls "of that hall are covered with an infinity of figures of ani- "mals, of Egyptian divinities, and hieroglyphic charac- "ters. The ceiling, of which the ſtones are each 18 feet "long, 7 broad, and 2 thick, is painted in freſco, and the "colours are ſtill very lively.

"From this hall we paſs into a large ſquare ſallon, whoſe "ceiling is ſupported by 6 columns, 3 on each ſide, of

* This means ingraving.

" the ſame form and proportion as the preceding ones, " only a little larger. This hall is 42 feet by 41.

" This ſame hall leads to four chambers. The firſt is " 63 feet by 18; the others 43 feet by 17. The walls " of theſe chambers are painted and covered with inſcrip- " tions and hieroglyphics.

" From the laſt chamber, we enter into a veſtibule " of 12 feet long, and 3 wide, which leads us to wind- " ing ſtairs, by which we aſcend the terraſs. We there " find a very dark chamber, 18 feet ſquare, and 9 high, " built on the ceiling of the grand hall: it is equally en- " riched with many figures cut in bas relief. We ſee on " the ceiling of that chamber, the figure of a giant in re- " lievo, whoſe arms and legs are extended [a]."

I might add to theſe relations that of Pococke: according to his opinion, the monument of Oſymandes ſubſiſts at preſent almoſt entire. He ſays, he has ſeen and meaſured it [b]: but his recital is ſo diffuſe, ſo obſcure, and ſo conjectural, that we can obtain no ſatisfaction from it. Father Sicard believed likewiſe, that he had found the mauſoleum of Oſymandes [c]: but we have now no complete relation of that illuſtrious traveller. There now only remains an account too abridged and ſuperficial to inſtruct and ſatisfy the curioſity [d].

Let us now relate all that concerns the other antiquities which they find ſtill in the neighbourhood of Thebes. I am going to begin by tranſcribing what has been ſaid by two miſſionaries who viſited thoſe ſuperb ruins towards the end of the laſt age. They ſpeak of the monuments which ſubſiſted in the neighbourhood of Luxor [e], a village which they preſume to have been built on the ruins of Thebes [f].

" I have counted," ſays one of theſe travellers, " about 120 " columns in one ſingle hall whoſe walls were covered with " bas reliefs and hieroglyphics from the top to the bottom. I

[a] Granger, voyage d'Egypte, p. 43. &c.
[b] Deſcription of the eaſt, Lond. fol. vol. 1. p. 139.
[c] Mem. les miſſions du Levant, t. 7. p 161. [d] See ibid.
[e] Relat. au voyage du Sayd, par les PP. Protais, & Charle-Francois d'Orleans, miſſion. dans la collection des voyages, publiés par Thevenot, t. 2.
[f] Granger, p. 51.

" have

" have there found many figures of marble as high as three " perſons, and two particularly of 56 feet high, although " they were ſitting on chairs. Two other ſtatues of women " coifed ſingularly with globes on their heads, meaſured " twelve feet from one ſhoulder to the other." The ſame traveller afterwards ſpeaks of another edifice, which the tradition of the country would have had formerly to have been the reſidence of a king." " We cannot," ſays he, " doubt much of this even before we enter into it: this palace " ſhews itſelf by many avenues formed by rows of ſphynxes, " the head turned to the inſide of the alley. Theſe figures, " which are each twenty-one feet high, are diſtant from " each other about the ſpace of two paces. I have walked," continues our traveller, " in four of theſe avenues, which " ended at ſo many gates of the palace. I know not whether " there were any more, becauſe I only made half the circuit " of that edifice, which appeared extremely ſpacious. I " counted 60 ſphynxes, in the length of an alley, ranged op- " poſite to an equal number, and 51 in another. Theſe a- " venues are about the length of a mall. The gates of this " palace are of a prodigious height covered with admirable " ſtones. That alone which forms the entablature, is 26½ " feet long, and broad in proportion. The ſtatues and the " figures in bas relief which this palace contains, are in very " great numbers *."

The ſame traveller adds, that the frontiſpieces of the temples which he has had occaſion to ſee in that place were not rich in architecture. Yet he ſaw temples ſo ſpacious, that he believes, three thouſand perſons might be ranged with eaſe on their roofs. He obſerves, laſtly, that all the figures in bas relief which decorated that monument, were only in profile. But for the reſt, theſe palaces were ſo ruined and in ſuch diſorder, that one could know nothing of their diſtribution nor of their arrangment.

* I think that this edifice muſt have been a temple, and not a palace.
I remark a very great reſemblance with the deſcription that Strabo gives us of the Egyptian temples. l. 17. p. 1158. & 1159.

Paul Lucas, who boaſts alſo of having viſited theſe ruins, ſpeaks in the ſame manner in his firſt voyage: or, to ſpeak more properly, he ſeems only to have copied the relation I have juſt now quoted [a]. I therefore think I ought not to dwell upon it. I go to what he has ſaid of another place ſituated in the neighbourhood of Thebes.

"Near the village of Hermant, we ſee the ruins of a moſt "grand and moſt ſpacious edifice: we perceive on all ſides "an immenſe number of ſtones and columns of the richeſt "and moſt beautiful marble. The columns which remain "ſtill ſtanding, are of a ſize that nothing can equal: they "are all covered with figures and hieroglyphics: their cha-"piters adorned with foliages, are of an order of archi-"tecture different from all thoſe which Greece and Italy "have tranſmitted to us. There remains ſtanding one part "of the building, whoſe covering is formed by five ſtones "twenty feet long by five, and two feet eight inches thick. "This roof is built in a plat-form. We ſee near it two co-"loſſal figures of granite marble which are each more than "ſixty feet high [b]."

M. Granger alſo ſpeaks of theſe different monuments, but in ſuch a manner as to make us think, that he has viſited them and ſeen them with his own eyes. But yet I ſhall not ſtop to relate what he ſays of the ruins of Luxor. His recital in that reſpect differs very little from the relation of the two miſſionaries, and that of Paul Lucas [c]: I ſhall only take notice of ſome monuments, which in my opinion no traveller before him ever mentioned.

He ſpeaks of a magnificent palace of which we ſee the ruins a league and a half from Luxor. "We enter at firſt "into a court which is 162 feet wide and 81 long. "The front of the palace is 180 feet, and 36 high; having "on each of its ſides a column of granite of the Corinthian "order. The gate is ten feet thick, eighteen high, and "eight wide: we go from that gate to another court, "which is 56 feet ſquare, and from that into another filled

[a] Voyage du Levant, t. 1. p. 110. & 111.
[b] Troiſieme voyage, t. 3. p. 17. & 22. [c] See p. 54. *&c.*
Father Sicard ſpeaks of it alſo in the ſame terms, *loco ſupra cit.* p. 160.

"like

" like the preceding ones with the ruins of columns. We " ſee on the ſide of it many chambers which are gone to " ruin, and whoſe walls are covered with hieroglyphics, and " human figures of both ſexes: at the bottom of this court, " we ſee two gates, the one large, and the other ſmall; " this laſt conducts us to five very dark chambers, in one " of which is a tomb of red granite ſeven feet long, three " wide, and three and an half high. The great gate leads " to a court, where we ſee the front of the body of a houſe, " which is 180 feet wide and 170 high: the gate, which is " placed in the middle, is thirty feet thick, twenty high, and " ten wide; this front is built of large ſquare ſtones. We " then enter into a court which is 112 feet ſquare; we " there ſee, to the left, four columns of white marble ſtand- " ing, and on the right, three chambers which are gone to " ruin. From this court we enter into a hall which is 112 " feet wide and eighty-one deep: on two ſides and the " bottom, runs a gallery. That at the bottom is formed " by a rank of eight large columns eight feet diameter, and " the ſecond rank of ſix large ſquare pillars which ſupport " the plat-form. The ſide-galleries are only formed by a " range of four columns like to the former, on which is " laid a ſimilar plat-form.

" It ſeems by the pedeſtals, and by the chapiters ſcattered " in the middle of this hall, and by the arrangment of ten " columns of the *Corinthian* order, whoſe ſhafts are of one " piece, there have been three different ranks of nine each: " their diameter is three feet and their height thirty." This traveller deſcribes beſides many more monuments; but they are not worthy of particular attention.

One very important obſervation to be made on the recitals of M. Granger, is, that he ſays he has ſeen columns of the Corinthian order, and even the compoſite order [k], in moſt part of the edifices of which he has given a deſcription. We know, that the architecture of the ancient Egyptians had no reſemblance either to that of the Greeks

[k] P. 38. 39. & 58.

or to that of the Romans. This reflection would lead us to think, then, that the monuments I have juſt mentioned, ought not to be attributed to the ancient ſovereigns of Egypt. We know in reality, that the Ptolomeys and the Roman emperors ſucceſſively adorned Egypt with very numerous and very magnificent monuments: theſe perhaps are the only ones which ſubſiſt at preſent. With reſpect to the mixture of the Egyptian, Greek, and Roman architecture, that we there remark, it is eaſy to give a reaſon for that irregularity, by admitting, that theſe works, although conſtructed by the Greeks and the Romans, muſt always have had a tincture of the Egyptian taſte and genius. We might further remove this difficulty which I have propoſed, by ſaying, that the Ptolomeys and the Roman emperors had an attention to repair many of the ancient edifices of Egypt. This is even a fact which appears ſufficiently confirmed by the inſcriptions reported by the modern travellers [l]. Therefore, this mixture of Egyptian, Greek, and Roman architecture, has nothing ſurpriſing in it. Nothing but an exact and judicious examination can enable us to diſtinguiſh among the Egyptian antiquities, what might have been the work of ancient times from what appertains to the more modern ages. We muſt have ſeen the monuments in queſtion ourſelves, or at leaſt have been able to have judged from the report of ſome intelligent and unprejudiced perſons, qualities which appear to have been wanting in all, or a great part of the travellers whom I have cited, except M. Grainger.

I ſhall ſay nothing at this time of Memphis. There is great appearance, that in the ages we ſpeak of, this city either did not exiſt, or at leaſt did not deſerve any attention. Homer, who ſpeaks of Thebes with the higheſt encomiums, does not even name Memphis. This obſervation has not eſcaped Ariſtotle [m]; and the conſequence which he draws from it, is ſo much the more juſt, as we cannot go to Thebes

[l] See Paul Lucas, *loco citat.* p. 33. 34. 35. & 41. 42.; Granger, p. 42. 43. 53. 84. 85.; Sicard, mem. des miſſions du Levant, t. 7. p. 43.

[m] Metereol. l. 1. c. 14. t. 1. p. 547.

without

without paſſing by Memphis. Homer having been informed of the grandeur and magnificence of Thebes, neceſſarily muſt have known that of Memphis, which was much eaſier of acceſs than Thebes. This reaſon appears to me deciſive, and makes me believe, that they did not begin to ſpeak of Memphis till after the age of Homer.

The ſame reaſon engaged me alſo not to ſpeak of the pyramids, thoſe famous monuments which have rendered Egypt for ever celebrated. I think their conſtruction poſterior to the epoch we are at preſent running over [n].

ARTICLE II.

Of the ſtate of architecture in Aſia Minor.

ASia, in the preſent times, offers us no object of architecture which deſerves our attention. Yet we cannot doubt, but the art of building was there ſufficiently cultivated; but we want lights of the taſte and ſkill which reigned at that time in the edifices of the eaſtern people. The ancient authors ſupply us with few reſources in this matter: the facts which they report, are not ſufficiently explained, nor ſufficiently circumſtantiated. They are wanting in thoſe details, which alone could inſtruct us in the taſte and manner of building of each age and of each nation.

Homer, for example, in ſpeaking of the palace of Priam, ſays, that it had at the entrance fifty apartments well built, in which the princes his children lodged with their wives. At the bottom of the court, there were twelve other apartments for the ſons-in-law of that monarch [o]: we farther ſee, that Paris had built for his particular uſe a very magnificent lodging [p]. Theſe facts prove, that, at the time of the war of Troy, architecture muſt have been cultivated in Aſia Minor; but they do not inſtruct us of the taſte in which they conſtructed thoſe edifices I have juſt mentioned. We cannot ſee in what their magnificence and beauty conſiſted. Homer

[n] See part 3. book 2. chap. 2.

[o] Iliad. l. 6. v. 242.; ibid. v. 315. [p] Ibid. v. 313. *&c.*

only

only remarks of the palace of Priam, that it was ſurrounded with porticoes, the ſtones of which had been worked with care [q]. He ſays much the ſame of that of Paris [r]. But we ſhall ſee in the article of the Greeks, that we have now no idea of what Homer intended by the word which we commonly tranſlate by that of portico. We ſhall further ſee, that that poet probably knew nothing of any of the orders of architecture. He never ſpeaks of the embelliſhments or external ornaments of buildings. I think therefore, that the magnificence of the palaces conſiſted at that time rather in their vaſt extent, than in the regularity and the decoration of their architecture.

I further do not ſee, that one can draw any light from the deſcription which the ſame poet gives of the palace of Alcinous *. It is to be preſumed that Homer has tried to put there all the magnificence known in his time: he might have taken for a model the moſt beautiful edifices he had ever ſeen. Yet we remark nothing in the deſcription of the palace of Alcinous, which has a direct relation to the beauty and magnificence of architecture. The elegance and the decoration of that edifice conſiſted ſolely in the richneſs of the materials, and that of the interior ornaments. The poet ſays that the walls of the palace and the threſhold of the doors were of ſolid braſs †. An entablature of ſky-blue went quite round the building: the doors were of gold, the chambranles of ſilver, and the floors of the ſame. A cornice of gold went round the apartments.

Homer then deſcribes the ſtatues and other interior ornaments which decorated the palace of Alcinous: but for the reſt he ſays nothing which denotes an edifice eſtimable on the ſcore of architecture. The beauties of that art, as far as we can judge, were very little known in

[q] Iliad. l. 6. v. 243. [r] Ibid. v. 314.

* See the diſſertation, where I explain the reaſons for which I think that the iſle of the Phæacians muſt belong to Aſia, ſupra, chap. 1.

† What Homer ſays of the threſholds of braſs is not a pure imagination of the poet's; this cuſtom is atteſted by many authors. Virgil. Æneid. l. 1. v. 448.; Paſ. l. 9. c. 19. p. 748.; Suid. *voce* Αντιπιτρουβής ατος, t. 1. p. 229.

Homer's

Homer's time. I ſhall further have occaſion to return to this ſubject in the article of Greece, and to treat it more extenſively.

CHAP. IV.

Of Metallurgy.

IF there could remain ſome doubts on the rapidity of the knowledge which many nations have had in metallurgy, the facts which I am going to relate would put an end to them, and diſſipate them entirely. We ſee the Iſraelites execute, in the deſert, all the operations which concerned the working of metals: they knew the ſecret of purifying gold [r], the art of beating it with a hammer [s], that of throwing it into fuſion [t], and in a word, to work it in all the poſſible ways. The ſcripture indeed remarks, that God had preſided over moſt of the grand works relative to his worſhip [u]. But independent of theſe marvellous productions, it is certain that they muſt have had among the Iſraelites, many very ſkilful and very intelligent artiſts in metallurgy. The golden calf, which that ungrateful and fickle people erected as an object of their adoration, is an evidence equally ſtriking of their perfidy towards God, and of the extent of their knowledge in the working of metals. This operation ſuppoſes great ſkill and intelligence. The long ſtay of the Hebrews in Egypt had enabled them to inſtruct themſelves in the neceſſary proceſſes to ſucceed in ſuch an enterpriſe.

The Egyptians as, I have inſinuated in the firſt part of this work, had made, even in the earlieſt times, critical inquiries and experiments in metals. The erection of the golden

[r] Exod. c. 25. v. 31. & 36.
The vulgate tranſlates all the paſſages in this chapter, where gold is mentioned, by *very pure gold*. But, following the Hebrew text, it means gold *purified*, for the verb is always in the participle.
[s] Exod. c. 25. v. 31. & 36. [t] Ibid. c. 32. v. 4.
[u] Ibid. c. 31. v. 1. c. 35. v. 31.

calf is not the only proof with which the ſcripture furniſhes us: what we there read, with regard to the deſtruction of that idol, deſerves infinitely more attention. The ſcripture ſays Moſes took the golden calf, burnt it, reduced it to powder, and afterwards mixed that powder with water which he made the Iſraelites drink [x]. Thoſe who work in metals are not ignorant, that, in general, this operation is very difficult. Moſes probably had learned this ſecret in Egypt. The ſcripture remarks expreſsly, that he had been brought up in all the wiſdom of the Egyptians [y]; that is to ſay, that Moſes had been inſtructed in all the ſciences which theſe people cultivated. I think then that at that time the Egyptians knew the art of performing this operation in gold, an operation of which, at the ſame time, it is neceſſary to ſhew the proceſs.

The commentators are much troubled to explain the manner in which Moſes burnt and reduced to powder the golden calf; the moſt of them have only given vain conjectures, and ſuch as are abſolutely void of all probability. An able chymiſt has removed all the difficulties that can be formed about this operation. The means which he thinks Moſes has uſed, is very ſimple. Inſtead of tartar which we uſe for ſuch a proceſs, the legiſlator of the Hebrews has uſed natron, which is very common in the eaſt, and particularly near the Nile [z]. What the ſcripture adds, that Moſes made the Iſraelites drink this powder, proves that he knew perfectly well the whole force of its operation [a]. He would aggravate the puniſhment of their diſobedience. One could not invent a way which would render them more ſenſible of it: gold made potable by the proceſs which I have mentioned, is of a deteſtable taſte *.

We ought farther to look upon as a mark of the rapid knowledge which many people had acquired in the art of working metals, the cuſtom which was very ancient of uſing

[x] Exod. c. 32. v. 20. [y] Acts, c. 7. v. 22.
[a] Stahll, vitul. aureus, in opuſc. chym. phyſ.-med. p. 585.
[z] See les mem. de l'acad. des ſcienc. ann. 1733. mem. p. 315.
* It approaches to that of magiſtery of ſulphur. See Senac, n. cours de chymie, t. 2. p. 39. & 40.

tin

tin in many works: the manufactory of this metal may be ranked among the moſt difficult proceſſes in metallurgy. It is yet certain that in the ages we are ſpeaking of, they knew perfectly the art of preparing and uſing tin. The teſtimonies of Moſes [b], and Homer [c], do not permit us to doubt of it.

I could cite many other facts which equally mark the progreſs that the Egyptians and many other nations had already made in metallurgy: the ſacred ſtory on one ſide, and the profane writers on the other, would furniſh me with abundant proofs; but I reſerve this detail for the following chapter, where I ſhall treat praticularly of gold work.

CHAP. V.

Of Sculpture, Gold work, and Painting.

WE cannot doubt that moſt of the arts which relate to deſign, had been greatly cultivated in the ages we are at preſent running over. Embroidery, ſculpture, ingraving of metals, and the knowledge of throwing them into fuſion to make ſtatues, were well known to the Egyptians, and many other people of Aſia. I ſhall attend leſs to report the proofs, than to examine the taſte which then took place in theſe ſort of works.

ARTICLE I.

Of Sculpture.

IT appears that the Egyptians had had at all times a great taſte for coloſſus's and gigantic figures. We ſee the marks of it in moſt of the monuments erected by Seſoſtris. Hiſtory ſays, that this Egyptian monarch cauſed to be placed before the temple of Vulcan his ſtatue, and that of the queen

[b] Numb. c. 31. v. 22. [c] See infra, art. 2.

his wife. Theſe pieces, which were of one ſtone, were 30 cubits high [d]. The ſtatues of his children, to the number of four, were not much leſs conſiderable. They were 20 cubits high [e]. Theſe facts are more than ſufficient to prove the taſte that the Egyptians had for coloſſus's. I ſhall have occaſion in the ſequel of this work to return again to this article.

As to the part of deſign, I have already mentioned it in the preceding books [f]. I do not therefore think it neceſſary to inſiſt on it at preſent. I reſerve for the third part of this work ſome particulars of the manner in which theſe people executed their coloſſus's. I ſhall add at the ſame time ſome reflections on the taſte and the practice of the Egyptian ſchool.

I know not in what claſs to range a very ſingular monument which an ancient author ſaith had been executed by the orders of Seſoſtris. This is the deſcription, ſuch as Clemens Alexandrinus reported after Athenodorus [g].

This author ſays, that Seſoſtris, having brought from the countries which he had travelled over, many able workmen, ordered the moſt ſkilful of them to make a ſtatue of Oſiris. This artiſt uſed in the compoſition all the metals and all the ſpecies of precious ſtones which were then known; but, above all, he put into it the ſame perfume with which they had, ſay they, embalmed the bodies of Oſiris and Apis. He had given to the whole work a ſky-blue colour. Each may form on the arrangement of the different matters what conjectures he pleaſes, by ſuppoſing, nevertheleſs, the reality of the fact, which to me appears improbable.

There remain very few lights on the progreſs and ſtate of ſculpture in Aſia. It is certain, that, near the ſame ages, this art was there in much uſe. The Iſraelites had caſt the golden calf; Moſes had placed on the two extremities of the ark of alliance two cherubims of gold [h]. Homer ſpeaks of a ſtatue of Minerva much revered among the Trojans [i].

[d] Diod. l. 1. p. 67.
[e] Ibid.; Herod. l. 2. n. 107.
[f] See part 1. book 2.
[g] Cohort. ad Gent. p. 43.
[h] Exod. c. 37. v. 7. &c.
[i] Iliad. l. 6. v. 302. &c.

Ho

He places in the palace of Alcinous, ſtatues of gold, repreſenting young people who carried torches to give light during the night [k]. At the time of Pauſanias they ſaw ſtill in the city of Argos, a Jupiter in wood which was ſaid to have been found in the palace of Priam when Troy was taken [l]. Theſe facts give us ſufficiently to underſtand that ſculpture was at that time much in uſe in Aſia; but they do not inſtruct us in the taſte in which they made theſe ſtatues.

Moſes does not teach us any thing touching the form of the two cherubims which covered the ark, only that they had extended wings one oppoſite to the other, and their faces turned fronting each other [m]. This looſe and uncertain deſcription has given room to commentators to repreſent the cherubims differently. Each has formed a particular idea: I ſhall not trouble the readers with the detail.

We are not more aſſured as to the form which the golden calf had. Yet there is great reaſon to think, that this idol had much reſemblance to that of the ox Apis ſo reverenced by the Egyptians. And I ſhould think in conſequence that it had a human figure with the head of an ox. There ſtill remain at this time many of theſe Egyptian repreſentations. If the golden calf was executed in the taſte of theſe models, we might be certain that this piece had nothing eſtimable on the ſcore of elegance, and the correctneſs of deſign.

With reſpect to the ſtatue of Minerva which is ſpoken of in the Iliad, Homer does not characteriſe the deſign in any manner. He does not even tell us of what it was made. We can only conjecture that the goddeſs was repreſented ſitting. On a very remarkable occaſion, Homer repreſents the Trojan ladies going in form to put a veil over the knees of that ſtatue [n].

As to the Jupiter found in the palace of Priam, Pauſanias who had ſeen it, has given us no deſcription of it. He only

[k] Odyſſ. l. 7. v. 100.

I have already explained for what reaſons I have placed the iſle of the Phaeacians in Aſia, p. 84.

[l] L. 2. c. 24. p. 165. [m] Exod. *loco cit.*

[n] Iliad. l. 6. v. 303. See alſo Strabo, l. 13. p. 897.

obſerves,

obſerves, that the ſtatue had three eyes, one of which was in the middle of the forehead [o].

Although the authors which I have juſt mentioned, have not been explicit on theſe pieces of high antiquity, I believe we may ſay that all theſe works were of a very middling taſte, and entirely deſtitute of elegance and agreeableneſs. I am not reduced to ſimple conjectures to ſupport this ſentiment.

It is more than probable in reality, that the ſtatue of Minerva of which Homer ſpeaks, was no other than the Palladium. We learn from Apollodorus, that this image was executed in the taſte of the Egyptian ſtatues, having the legs and thighs joined together [p]. The Palladium muſt have been by conſequence a ſort of unformed and groſs maſs, without attitude and motionleſs.

ARTICLE II.

Of Gold work.

OPulence, and luxury which is the conſequence, have given birth to gold work. Pomp and effeminacy had contributed to perfect this art, whoſe origin, as we have ſeen in the firſt part, aſcended to very remote ages. The enumeration of all the facts which prove how much the works in gold were common in the ages we are at preſent buſied in, would engage us in infinite details: this of all the arts which have relation to deſign, is that which ſeems to have been moſt cultivated. Let us chuſe ſome proper ſubjects to make known the progreſs of gold work, and find out the objects which can give us an idea of the point of perfection to which that art was come at that time in Egypt and in Aſia.

The ſcripture acquaints us, that the Iſraelites, the moment

[o] L. 2. c. 24. p. 165.

[p] L. 3. p. 180.

It is in this ſenſe that we ought to underſtand the expreſſion συμβίβηκος, which Apollodorus uſes, as Scaliger, Kuſther, and many other critics have proved.

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they went out of Egypt, borrowed a large quantity of vaſes of gold and ſilver of the Egyptians [q]. This fact ſhews that gold work muſt have been then much cultivated among theſe people. To the teſtimony of Moſes we may join that of Homer. The poet makes mention in the Odyſſee, of many preſents which Menelaus had received in Egypt. They conſiſted of different works in gold, the taſte and workmanſhip of which ſuppoſed great addreſs and ſkill. The King of Thebes gave to Menelaus, two large ſilver tubs, and two beautiful tripods of gold. Alcandra, wife of this monarch, made a preſent to Helen of a gold diſtaff, and of a magnificent ſilver baſket, the edges of which were fine gold and elegantly wrought [r]. This union, this mixture of gold with ſilver appears to me worthy of remark. The art of ſoldering theſe metals depends on a great number of ſciences. This is a proof that the Egyptians had been uſed a long time to the working of metals. We perceive alſo in the deſign of this baſket a ſort of taſte and a particular kind of finiſhing.

We ought to refer alſo to the Egyptians that great quantity of trinkets which the Hebrews were provided with in the deſert. It is ſaid that they offered for the making of the works deſtined to divine ſervice, their bracelets, their earrings, their rings, their claſps, without counting the vaſes of gold and ſilver [s]. Moſes made all theſe trinkets be melted, and converted them to different works proper for the worſhip of the Almighty. The greateſt part of theſe works were gold, and among them they had pieces of great execution and highly finiſhed workmanſhip. A crown of gold entirely ſurrounded the ark of alliance [t]. The table of ſhewbread was adorned with a border of open chaſed gold work [u]. The chandelier of ſeven branches appears to me above all worthy of much attention. The deſcription which the holy ſcripture makes of it, gives us an idea of a very ingenious and well-compoſed deſign [x]. This piece conſiderable in it-

[q] Exod. c. 12. v. 35.
[r] Odyſſ. l. 4. v. 125. *&c.* [s] Exod. c. 35. v. 22.
[t] Ibid. c. 25. v. 11. [u] Ibid. v. 24. & 25. [x] Ibid. v. 31. *&c.*

ſelf,

ſelf, was of very fine gold beat by the hammer[y]. I paſs over in ſilence a number of other works equally eſtimable for the matter, and for the workmanſhip which muſt have been very delicate.

With reſpect to Aſia, gold work was at that time as much cultivated as in Egypt. Profane hiſtory furniſhes us with ſufficient teſtimonies which prove that many people in Aſia had made a great progreſs in ingraving, in chaſing, and generally in whatever concerned the working of metals. The greateſt part of the works cried up by Homer came from Aſia[z]. We there remark armours, cups, and vaſes of a very elegant deſign and a very agreeable taſte. Herodotus ſpeaks alſo with great encomiums of the richneſs and magnificence of the throne on which Midas diſtributed juſtice. This prince made a preſent of it to the temple of Delphos. 'Tis true Herodotus has not left us a particular deſcription of this throne. But as he aſſures us that the work deſerved to be ſeen[a], we may conjecture that the workmanſhip was highly finiſhed. I ſhall obſerve laſtly, that Homer gives in general to the nations of Aſia, arms much more ornamental and much more rich than to the Greeks. Thoſe of Glaucus, and of many other chiefs of the Trojan army, were gold[b]. The attention of Homer to cry up theſe circumſtances, proves not only the opulence and luxury of the Aſiatics, but alſo the great knowledge which theſe people had at that time in works of gold, and the arts which depend on it.

Although my intention was to avoid details, yet I cannot diſpenſe with myſelf from making ſome reflections on the ſhield of Achilles, a work, the idea of which appears to me admirable, and which would certainly produce a high effect if it was executed. Many reaſons engaged me to ſpeak of it under this article. Homer could not take the idea of ſuch a work, but from ſome models which muſt have come near it. He has then only followed and embelliſh-

[y] Exod c. 35. v. 31. & 36.

[z] See Iliad. l. 11. v. 19. l. 23. v. 741. &c.; Odyſſ. l. 4. v. 615. &c. l. 15. v. 414. & 459. *&c.*

[a] L. 1. n. 14. [b] Iliad. l. 6. v. 236. l. 2. B. v. 376. l. 10. v. 439.

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ed an art invented before the war of Troy. This poet, as I think I have already remarked, is very exact in not giving to the people of whom he ſpeaks any knowledge that did not belong to the ages in which he places them. A more faithful hiſtorian than Virgil, he does not anticipate the times. I think that Homer could have ſeen only in Aſia the models which ſuggeſted to him the idea of the ſhield of Achilles. The Grecks were at that time too rude to give them the honour of ſuch a work. With reſpect to Egypt, I doubt whether Homer was ever there. Theſe motives, I think, are ſufficient to refer to the times and to the people whom I am actually ſpeaking of, the maſterpiece which we are going to examine.

I ſee no fact in ancient hiſtory which can ſerve ſo well as the ſhield of Achilles, to make known the ſtate and the progreſs of arts in the preſent ages. Without ſpeaking of the richneſs and variety of the deſign which runs through that work, we ought to remark, firſt, the blending the different metals which Homer puts in the compoſition of his ſhield. Copper, tin, gold, and ſilver are employed in it[c]. Laſtly, we muſt obſerve, that at that time they knew the art of giving, by the impreſſion of fire on metals, and by their mixture, the colour of different objects. Let us add to this the ingraving and the chaſing, and we ſhall agree that the ſhield of Achilles formed a very complicated work.

If it is eaſy to make known the beauty and the merit of this important piece, it is not the ſame as to the mechaniſm of the work. It is not eaſy to form a clear and preciſe idea of it: we do not ſufficiently comprehend the manner in which Homer would have us to underſtand how it muſt have been executed. Yet let us ſee if, in modern productions, we cannot find ſome, whoſe compoſition may aſſiſt us to comprehend this kind of work.

Let us call to mind thoſe works in trinkets which they

[c] Iliad. l. 18. v. 474. & 475.

made ſome years ago, in which, with the ſole help of gold and ſilver differently mixed, upon a plain and uniform ſurface, they repreſented divers ſubjects. The artifice of theſe ſort of trinkets conſiſted in the infinite number of little pieces inlaid and ſoldered on the ground of the work. All theſe different pieces were ingraved or chaſed. The colour and reflection of the metals joined in the deſign, detached the ſubjects from the back-ground of the work, and made them ſtand forward. We may conjecture, that it was in this taſte nearly, that Homer has imagined the execution of the ſhield of Achilles by Vulcan. The field of it was tin, interſected and varied with many pieces of different metals ingraved and carved. Let us give ſome examples.

Would Vulcan repreſent oxen? he choſe gold and tin [d], that is to ſay, a piece of yellow metal and a piece of white metal to diverſify his flock. Was his intention to repreſent a vine loaden with dark-coloured grapes? Gold compoſed the ſtem of that vine. It was ſupported by props of ſilver [e]. Pieces of poliſhed and imbrowned ſteel probably formed the dark-coloured grape. A ditch of the ſame metal ſurrounded the vineyard. A paliſade of tin might ſerve for the incloſure [f]. I ſhall not enter into any very particular details: this ſlight ſketch is ſufficient to explain the manner in which I conceive the mechaniſm of that work. As for the reſt, what ideas ſoever we form of the ſhield of Achilles, we may be aſſured, that the invention of it was great and magnificent. Such a compoſition does not permit us to doubt, that, at the time of the war of Troy, goldſmiths work was come to a very great degree of perfection among the people of Aſia; for it is always in theſe countries that Homer places the ſeat of arts and of famous artiſts.

[d] Iliad. l. 18. v. 574.
[e] Ibid. v. 561. &c.
[f] Ibid.

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ARTICLE III.

Of Painting.

THE origin of painting is one of the moſt difficult queſtions that occurs in the hiſtory of the arts. There reigns a very great obſcurity, as to the time of its being invented and put in practice. It is not much more eaſy to decide to what people we ought to give the honour of it. Sentiments are ſo divided about the countries and about the time when this art took its riſe. Some have given the honour to the Egyptians[g]; others to the Greeks[h]. It is not here a proper place to examine this point of criticiſm. With reſpect to the time in which painting took its riſe, ſome authors pretend that the invention of this art preceded the war of Troy[i]; others think it poſterior to that epoch[k]. This is what is to be examined into. But before we give ourſelves up to theſe reſearches, it is proper, I think, to eſtabliſh the ſenſe of the word by which I underſtand *painting*, and to fix the object of the queſtion.

I define painting, The art of repreſenting on a plain ſurface, by means of colours, objects, ſuch as they appear to us figured and coloured by nature *. From this definition, I ſay, and I hope to prove, painting was not known in the ages we are now examining.

The Egyptians boaſt of having known painting 6000 years before the Greeks. The holy ſcripture and profane hiſtory equally agree to reject ſuch a chimera. *Pliny* himſelf has not made any account of this vain pretenſion, and has not thought it worth his while to dwell upon it[m].

[g] Plin. l. 7. ſect. 57. p. 417. l. 35. ſect. 5. p. 682.; Iſidor. orig. l. 19. c. 16.
[h] Ariſtotel. Theophraſt. *apud* Plin. l. 7. p. 417.
[i] Ariſtotel. *loco cit.* [k] Theophraſt. ibid.; Plin. l. 35. ſect. 6. p. 692.
* I comprehend in this definition the *Brooch*, attended with the different ſhades and the different degrees of colours which are there obſerved, beſides the effect of ſhades, clairs obſcurs, *&c.*
[l] Pliny l. 35. ſect. 5. p. 681. [m] Ibid.

But in rejecting this exceſſive number of years, we muſt examine if the Egyptians had not the knowledge of painting very early; many critics, and ſome modern travellers, are of this opinion. Let us examine the teſtimonies on which they ground their ſentiment.

Diodorus, in deſcribing the mauſoleum of Oſymandes, ſays, that the ceiling of that monument was ſpread over with ſtars on a blue ground [a]. We might throw ſome doubts on the truth of this fact. Diodorus is the only one who ſpeaks of it, and that only from the relation of Hecateus, an author much cried down by the ancients. This teſtimony appears then at leaſt ſuſpicious. But let it be admitted, what will reſult from it? We are ignorant in what time this mauſoleum might have been built. Diodorus does not even tell us the age in which the monarch lived whoſe aſhes it contains. The tomb of Oſymandes may be very ancient, and yet have been built in ages poſterior to thoſe we are now examining [*]. Beſides, I ſhall aſk what inductions we could draw from a ſimple laying on, of one colour, on which they had probably applied leaves of gold or ſilver to imitate ſtars.

In the ruins of thoſe vaſt palaces ſpread in the Upper Egypt, we ſee, according to the report of ſome travellers, antique paintings of a very lively and ſhining colour [b]. I will not diſpute the truth of theſe relations; but in agreeing that the facts are really true, they prove nothing againſt the ſentiment which I have embraced. Theſe paintings are probably the work of ſome Greek artiſts called into Egypt by the Ptolomeys and their ſucceſſors. This conjecture appears to me ſo much the better founded, as a modern traveller, deſcribing a temple in which he had ſeen paintings, ſays, that the columns that ſupported the

[a] L. 1. p. 56.

[*] This is the ſentiment of Marſham, p. 403.

[b] Voyage du Sayd par deux PP. Capucins, p. 3. & 4. in the collection of relations publiſhed by Thevenot, t. 2.; Paul Lucas, t. 3. p. 38. 39. &c. 69.; Rec. d'obſervat. curieuſes, t. 3. p. 79. 81. 133. 134. 164. 166.; Voyage de Granger, p. 35. 38. 46. 47. 61.

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ceiling were of the Corinthian order[p]. He further obſerves, in ſpeaking of a palace, which, he believes, made part of the ruins of ancient Thebes, that the chapiters of the columns were of the compoſite order, highly finiſhed[q]. We are not ignorant that the architecture of the firſt Egyptians had no reſemblance to any of the five orders which we have from the Greeks and the Romans. Another traveller quotes a Greek inſcription found in an ancient palace where he had likewiſe ſeen paintings[r].

I think it right to conclude, after theſe facts, that the monuments in queſtion were not the work of the ancient inhabitants of Egypt; or, ſuppoſing that they were, they had been repaired by the Greeks or by the Romans. Thus the paintings which they found there decided nothing for the antiquity of this art in Egypt.

Yet they inſiſt, and pretend to prove by the ſame pictures, the antiquity of the edifices which contained them. The Perſians, ſay they, were for ſome time maſters of Egypt. Theſe people were declared enemies to temples, and to all ſorts of repreſentations; and, by conſequence, we cannot attribute to them the paintings which we ſtill ſee in the temples and in the palaces of Egypt. Theſe works then muſt have been executed before the ages in which the Perſians conquered Egypt[s]. I am bold enough to ſay, that I ſee no ſort of conſequence in this reaſoning.

Cambyſes deſtroyed as much as was poſſible for him, the monuments of Egypt: we may conclude from this fact, avowed by all antiquity, that every thing that bore the marks of taſte and magnificence, was demoliſhed by this barbarous conqueror. Thus we ought to look upon the palaces and the temples they mention to us as poſterior to the invaſion of this prince. But ſuppoſing, what appears to me very probable, that many of theſe edifices had eſcaped the fury of this prince, we muſt remember,

[p] Granger, p. 38. & 39.
[q] Ibid. p. 58.
[r] Paul Lucas, t. 3. p. 38. 39. 41. & 42.
[s] Rec. d'obſervat. cur. t. 3. p. 134. & 166.

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that the conqueſt of Egypt by Cambyſes was only 525 years before Chriſt. There might then ſubſiſt Egyptian pictures anterior to this monarch, without their date aſcending to the ages which we are treating of at preſent. It appears to me much more natural to attribute them to the Greeks. Far from imitating the conduct of the Perſians, theſe conquerors applied themſelves to repair the ancient monuments of Egypt. They enriched them with new ornaments, among which number, I think, we ought to put the pictures which they mention.

Let us go on to other teſtimonies which they produce to prove, that this art was known in the ages which make the objects of the ſecond part of our work. All is reduced to conjectures, and to inductions drawn from ſome paſſages of Homer. They cite no poſitive fact: they alledge the veils embroidered by Helen and Andromache, of which I have ſpoke before; and ſupport their opinion by the deſcription of the ſhield of Achilles, and from ſome other places of the Iliad and Odyſſee. They conclude from theſe facts combined and united, that painting muſt have been in uſe at the time of the war of Troy. Are theſe conjectures well founded, and are theſe reports really true? That is what we are going to judge of.

The partiſans of the opinion which I attack begin by ſuppoſing, that they could not think to ſtain wool and embroider ſtuffs, but with a view of imitating painting: this proceeding appears, ſay they, very probable: it is more natural and more eaſy to repreſent objects by the help of colours and of a pencil, than by means of threads dyed variouſly. The ſhaded embroidery could not have been invented till long after painting, of which it ſeems only to be a laborious imitation: yet we ſee that ſort of embroidery much in uſe at the time of the war of Troy. The invention of painting is then anterior to that epoch. It is probable, moreover, that to do theſe works of embroidery, they uſed, as we do at this time, coloured patterns: this is ſufficient to ſhew, that they knew to paint, and that that art muſt have been very common and very extenſive in the heroic ages.

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They draw almoſt the ſame concluſions from the deſcription of the ſhield of Achilles: they inſiſt upon the great variety of ſubjects and deſigns which have place in that piece; on the art of grouping figures in bas relief from the multiplicity of colours which Homer, they ſuppoſe, would have us underſtand, that each object was animated with. The different impreſſions which the action of the fire leaves on the metals is, ſay they, the only way the poet could invent to give and vary the ſhades of the colour: this could not have been ſuggeſted to him but by the ſight of ſome picture. For, they add, it is not natural to believe, that at firſt they thought of repreſenting the colour of objects by the tinge which the action of the fire might impreſs on metals: every thing, on the contrary, tells us, that they muſt have begun by uſing natural colours. The work of Vulcan muſt only be conſidered as an imitation of painting [t].

Theſe are the principal reaſonings which they uſe to ſupport the antiquity of this art; it muſt be agreed, that they are very ſpecious. Let us try to anſwer them, keeping in view the definition which I have given of painting: that is an eſſential point in the preſent queſtion.

Is it very certain, that in the works of embroidery of which Homer ſpeaks, there were different ſorts of colours, different ſhades? I think not; and I dare ſay, by examining the force of the terms which the poet uſes, we ſhall ſee that he means only different figures, and different flowers ſpread over the veils embroidered by Helen and Andromache [u]. I do not think they will ever be able to prove, that the expreſſions uſed in theſe paſſages mean objects coloured variouſly [*]. Theſe deſigns, to keep cloſe to the text,

[t] Acad. des inſcript. t. 1. H. p. 75. &c.; Madame Dacier in her notes on Homer.

[u] Iliad. l. 3. v. 125. &c.; l. 22. v. 140. &c.

[*] M. l'Abbé Fraguier, and Mad. Dacier, pretend that the word ἐνέπασσεν, ſignifies *to repreſent with different colours.*

But, 1. they do not quote any authority to prove that ἐνέπασσεν ſignifies to repreſent with different colours. This word, as well as that of ἔπασσε, which Homer uſes in ſpeaking of the veil embroidered by Andromache, mean literally, *to ſpread, to ſow*, that is to ſay, that there were many figures ſpread about in theſe embroideries.

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text, were of one uniform colour, different, without doubt, from the ground on which they were embroidered. I do not ſee any thing that indicates a mixture of ſhadings: the figures muſt have glared on the ground of the embroidery; but the colours which ſerved to repreſent them, were of one and the ſame dye: they had no ſhadings, no degradation. I embrace this idea ſo much the more readily, as in the paſſages where Homer ſpeaks of theſe ſort of works, he never makes mention but of wool of one colour *. Beſides, in the Odyſſee, they bring to Helen a baſket of bottoms of worſted ſpun extremely fine †. If it had been then the cuſtom to uſe different ſhadings in embroideries, Homer probably would have given us to underſtand by ſome epithet, that theſe bottoms were of many colours, and that is what he has not done. In vain then do they imagine patterns painted of different colours, ſince it appears certain, that the embroideries of which Homer ſpeaks, were only of one colour. Even the idea of patterns ſerving for models appears to me a ſuppoſition not well ſupported. We are ignorant of the manner in which they worked at the time of the war of Troy; and if I might ſay what I think, I ſhould believe that they then contented themſelves to pounce their deſigns on the canvas: but in caſe they think patterns abſolutely neceſſary, it muſt be owned, that they were ſimple deſigns of one and the ſame colour, ſuch as they do at this time with a pencil or with ink.

The concluſions which they intend to draw from the ſhield of Achilles, do not appear to me to be better found-

The words θρόνα ποικίλα which we find uſed for the veil of Andromache, may admit of great difficulty. I doubt, notwithſtanding, whether they can draw any great advantage from them. This is the only time that this expreſſion is found in Homer: it is conſequently very difficult to fix the ſenſe. Yet, as far as we can judge, Homer did not deſign flowers of different colours; but rather different ſpecies of flowers. We find, it is true, the word ποικίλος uſed to deſign objects variouſly coloured, but that is only in authors greatly poſterior to Homer. They will never prove, that, in the writings of this great poet, this word ſhould deſign objects coloured variouſly.

* Odyſſ. l. 4. v. 135. l. 6. v. 53. and 306. l. 13. v. 108.

† Ibid. l. 4. v. 134.

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ed. Let us read attentively the text of Homer, we ſhall ſee that he never had in view any thing but a piece of goldſmiths work; and what he ſays of the diverſity of colours, might be perfectly explained either by the action of the fire upon the metals, or by their mixture and their oppoſition. We cannot even ſuſpect that he meant ſhadings, degradations, and union of colours, nothing, in a word, that conſtitutes the eſſence of painting.

There is nothing, for example, in the manner in which Homer deſcribes a vine ingraved on the ſhield, which could not be given by the mixture of metals, and by the colour the action of the fire is capable of imprinting on them: the ſtems were gold, the dark grapes were of imbrowned ſteel, and the props of ſilver [z]. But we muſt obſerve, that the poet does not ſpeak of the leaves of this vine. If he had entered into that detail, he muſt neceſſarily have ſaid they were green; and that is what Homer has not done; he has left us to underſtand that the ſtems adorned with their leaves were of gold.

This obſervation ſhould be applied to the whole deſcription of the ſhield of Achilles: no place acquaints us that this poet had an intention to deſign red colours, blue, green, *&c.* The action of the fire, and the mixture of metals, is not ſufficient to give theſe colours: we muſt uſe for theſe ſorts of effects metallic colours, that is to ſay, paint in enamel, a ſecret which certainly muſt have been unknown at that time. We even ſee that all the perſonages which Homer had occaſion to put in this compoſition are of gold [a], even to ſhepherds who conduct a flock [b].

Laſtly, even agreeing that the veils of which Homer ſpeaks were ſhaded with different colours, and that the objects painted on the ſhield of Achilles indicate mixtures of dyes and colours diverſified; the antiquity of painting does not appear to me more ſolidly eſtabliſhed. To ſay that

[z] Iliad. l. 18. v. 561. &c. [a] Iliad. l. 18. v. 517. [b] Ibid. v. 577.

the art of embroidery had not been invented, but to imitate the art of painting, is a notion without any foundation. How do they know that in dying of wool, and in making uſe of different colours to embroider ſtuffs, the intention of the firſt men had been to copy painting? The end which they propoſed in all times had been to imitate nature: painting itſelf was not invented but for this purpoſe. But, add they, it is more eaſy to repreſent objects by the help of colours and a pencil, than by any other means. I agree to it: this reaſon nevertheleſs is not more convincing; I appeal to experience. It teaches us, that in the arts they have often begun with the moſt difficult proceſſes before they attained to the moſt ſimple and the moſt eaſy.

The proof that Homer never had in view painting, properly ſo called, and that he even did not know it, is, that the terms conſecrated in the Greek language to deſign this art *, are not to be found in his writings. Pliny has even remarked that this poet very ſeldom ſpeaks of colours [c]. If painting had been in uſe in the times that Homer lived, can we believe that he would have neglected to ſpeak of ſo admirable an invention, he who was ſo particularly attached to deſcribe the arts? We may add, that we ſee no pictures † in the palace he is pleaſed to deſcribe, although he puts there ſtatues and other ornaments of chaſing and ingraving.

They knew, certainly, if I may be allowed the term, to daub wood and other things of ſome colour. The Greeks at the time of the war of Troy uſed to paint their veſſels red [d], and yet that colour at that time was very imperfect [e]. The

* Γραφὴν and ζωγράφος, which are often found in authors who have written ſince Homer. Ζωγράφος is neither in the Iliad nor in the Odyſſee. If we there ſee the word γραφὴν, it is not in the acceptation of painting. It never ſignifies in Homer but to *repreſent*, to deſcribe an object.

[c] L. 33. ſect. 38. p. 624.

† Virgil has not been ſo circumſpect. He puts pictures in the temple of Carthage: Æneas finds himſelf among the heroes who were painted there.

--------*Animum pictura paſcit inani.* Æneid. l. 1. v. 464. &c.

But this is not the only occaſion where, as I have already remarked, Virgil has not been afraid to offend againſt *cuſtom*; I ſhall cite many examples of it in the ſequel.

[d] Iliad. l. 2. B. v. 144.

[e] See Theophraſt. de lapid. p. 402.; Plin. l. 33. ſect. 37. p. 624.

foot

foot of the table which Neſtor uſed, was alſo covered with ſome colour[f]. But ſhall we give the name of painting to ſuch ſort of works? It is the mixture, the union, and the oppoſition of colours, or even the different ſhades of the ſame colour, theſe are the reflections, the ſhades, and the lights which conſtitute the art of painting. The reſt is only plaiſtering.

It is ſufficient to caſt our eyes on hiſtory, to be convinced that painting was unknown to the ages we are at preſent ſpeaking of. A croud of monuments atteſt the frequent uſe they made at that time of carving, of chaſing, and of ſculpture. Nothing like it, nor even approaching to it, with reſpect to painting. There reigns on this ſubject the moſt profound and moſt general ſilence. The ſcripture, which ſpeaks of ſo many ſorts of arts, which forbids ſo expreſsly every repreſentation tending to idolatry, ſays nothing of painting. Laſtly, the teſtimony of an author who has great knowledge of antiquity, decides it in favour of the ſentiment which I have embraced. Pliny affirms, that the art of painting was not yet invented at the time of the war of Troy[g]; and he appears not to have been determined till after having examined this queſtion very attentively.

Want of attention and the defect of not having ſufficiently reflected on the eſſence of painting, has made them fall into many miſtakes with relation to the origin and epoch of this art. Moſt authors who have treated on this ſubject, have always confounded deſign with painting; and becauſe they knew to deſign in the moſt ancient times, they have concluded that they alſo knew the art of painting, in ſpite of the eſſential difference there is between the practice of one and the other. This is, I believe, the ſource of all the errors which have been propagated about the epoch of painting. They would never diſtinguiſh the art of deſigning from that of painting. I imagine I have ſaid enough to ſhew that

[f] Iliad. l. 11. v. 628. I ſay of *ſome colour*, for we muſt know that there is no agreement about the ſort of colour that Homer means by the term Κύανος, which he uſes on many occaſions.

[g] L. 35. ſect. 6. p. 682.

painting was not known in the ages which make the ſecond part of my work; but that it was even poſterior to Homer.

SECTION II.

Of the ſtate of arts in Greece.

WE find very few lights in the hiſtory of the Egyptians and the people of Aſia on the progreſs of the arts. It is not eaſy to perceive theſe different degrees, that ſucceſſive progreſſion which ought neceſſarily to prove all that enters into theſe kind of diſcoveries and inventions. It is not then in the hiſtory of the oriental nations that we muſt ſtudy the progreſs of the human mind. It does not ſhew itſelf ſufficiently: the gradations are not ſenſible enough, for want of monuments and hiſtorical details.

The Greeks will furniſh us with many more reſources. We are ſufficiently inſtructed in the ſtate in which the arts had been ſucceſſively in the different ages which compoſed the hiſtory of that nation. From the moment in which theſe people began to emerge from their barbarity, to the time in which they finiſhed their hiſtory, we may conſider their progreſs, and follow the order and the thread of their knowledge. We ſhall eaſily diſcover in the hiſtory of the arts among the Greeks, the different degrees by which theſe people were raiſed ſucceſſively from the moſt groſs practices to the moſt ſublime diſcoveries.

Fables, it is true, have greatly altered the firſt monuments of the hiſtory of Greece. There reign many contradictions about the time and about the authors of the firſt inventions. We cannot depend on the facts but to a certain degree. Yet, in ſpite of the obſcurity and uncertainty which a tradition not much to be depended upon, has ſpread over the times which we are now going to run over, with ſome attention and the aſſiſtance of criticiſm, we are able to clear up the truth of a great number of events; we

we there perceive in general a certain connection, a certain order, which does not permit us to throw them into the rank of thoſe traditions totally void of hiſtorical foundations.

In combining, in bringing together many facts, many circumſtances, we may ſucceed to form a very exact idea of the origin and of the progreſs of arts in Greece.

There are few arts of which the Greeks can boaſt to have been the inventors. They had received them, for the moſt part, from Egypt and Aſia. But the point of perfection to which theſe people had carried the diſcoveries which other nations had imparted to them, ſufficiently recompenſes for the merit of the invention. We owe to Greece, the taſte, the elegance, and all the beauties, in a word, of which the arts are capable.

We may yet ſay that the progreſs of the arts had been ſlow among the Greeks. From the firſt ages after the deluge we ſee pomp and magnificence reign in Aſia and in Egypt. Nothing of this kind in Greece. Inſtead of thoſe grand works, inſtead of thoſe works equally magnificent and finiſhed, with which we were entertained at this time, we are going to ſee nothing but the moſt ſimple objects, groſs practices proportioned to the little knowledge that a nation muſt have in the arts, which only juſt began to emerge from barbarity, and to be poliſhed.

CHAP. I.

Of Agriculture.

LET us recollect in a few words what I have already ſaid elſewhere of the ancient ſtate of Greece [h]. We have there ſeen that the firſt inhabitants of that country were plunged into the darkneſs of the moſt groſs and moſt profound ignorance. They were, to ſpeak properly, real ſavages running in the woods, without a chief and without diſcipline, fierce to the degree of eating each other; ig-

[h] Part 1. book 1. chap. 1. art. 5.

norant

norant of the uſe of arts, and the proper food of man, ſupporting themſelves with fruits, with roots, and wild plants.

The conquerors who went out of Egypt a few ages after the deluge, had probably carried into Greece ſome tincture of the arts; but theſe firſt ſeeds could not proſper. The extinction of the family of the Titans, and the deſtruction of their empire, replunged Greece into anarchy and ignorance. The different colonies which paſſed ſome time after this event into that part of Europe from Aſia and Egypt, drew them from barbariſm and rudeneſs. Theſe new colonies by mixing themſelves with the ancient inhabitants, ſoftened their manners. They engaged ſome families to quit the woods, and join them. They formed ſocieties in many diſtricts. The chiefs of theſe new eſtabliſhments imparted to their ſubjects the moſt neceſſary knowledge for man, and provided for their moſt preſſing neceſſities. Greece was inſenſibly poliſhed. It was enriched ſucceſſively by diſcoveries from Aſia and Egypt. Every thing changed its face in that part of Europe. The people were humanized, the arts were ſolidly eſtabliſhed, and acquired even a new degree of perfection. Light ſucceeded to the darkneſs of ignorance and rudeneſs.

Ancient authors do not agree about the time of theſe happy changes. It is very difficult to determine from their relations, by whom and in what time the arts were introduced among the Greeks. There remain on theſe facts the greateſt obſcurity and the greateſt contradictions. Let us try to diſcover the ſource of them.

The Greeks had received their arts from the people of Egypt and of Aſia; but conformable in this point with all the other nations of antiquity, they would attribute their origin to the gods. This notion has thrown the greateſt obſcurity over the hiſtory and the epocha of the arts in Greece. We may aſſign for it many cauſes.

The chiefs of the firſt colonies which came into Greece, brought into that part of Europe ſome tincture of the arts. They introduced at the ſame time the worſhip of the divi-

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nities honoured in the countries from whence they came. Theſe divinities were for the moſt part men whom they had deified in acknowledgment for the uſeful diſcoveries which they had imparted to mankind. The ſtrangers who introduced theſe gods into Greece, without doubt made known alſo the motive of the worſhip which they paid to them.

Theſe firſt eſtabliſhments, as I have already ſaid, did not ſubſiſt long. The family and the empire of the Titans was extinguiſhed after two or three generations. Greece fell immediately into its ancient ſtate. Ignorance, an inſeparable companion of trouble and anarchy, made them forget theſe events. There only remained a confuſed remembrance. The Greeks did not heſitate to confound thoſe who had ſhewed them the arts, with the divinities under whoſe auſpices they had been brought to them: the firſt cauſe of error and confuſion.

New colonies paſſed into Greece ſome time after the Titans. The conductors of theſe various colonies brought again into that part of Europe the arts and the divinities of the countries from whence they came. Theſe countries were nearly the ſame with thoſe from whence the ancient colonies came, that is to ſay, Egypt and Phœnicia. The worſhip of the divinities which theſe new colonies introduced, did not differ, either in the form or the motives, from that which the Titan princes had originally brought; a new ſource of errors and uncertainties. Ignorance and the courſe of time had confounded theſe epochs; and they afterwards looked upon thoſe as new inſtitutions, whoſe origin was very ancient.

The divinities of Egypt and Phœnicia, by changing their retreat, inſenſibly changed their name. The Greeks, after having adopted them, appropriated them to themſelves, and would make it be believed that the gods whom they adored, were born in Greece. In conſequence of this, they ſearched for explications and reſemblances agreeable to thoſe ideas. The prieſts took care to propagate them. They diſguiſed the hiſtory of the ancient divinities. The truth of the facts

was

was forgot by little and little. The poets, whom we regard as the divines of paganiſm, but who were only in reality the divines of the people, ſoon made this appear the origin of the gods brought from Egypt and Phœnicia. They invented different circumſtances proper to adorn and to clothe their fictions. Inſtead of the ancient tradition, they ſubſtituted gods born in the heart of Greece. This ſyſtem took almoſt with every body; pride and ſuperſtition favouring it.

The Greeks began very late to write hiſtory. They had then almoſt loſt ſight of thoſe firſt events. Yet the memory of them was not ſo far aboliſhed, but that there remained ſome traces. The ſenſible writers of Greece have acknowledged, that all the divinities which they adored had been brought to them from the eaſt [j]. But thoſe who followed the popular ideas, have written conformably to the ſyſtem reigning in the minds of the people, and have propagated to us thoſe errors adopted in the latter times. Hence that monſtrous mixture of ridiculous and abſurd adventures with which the hiſtory of the gods of Greece is filled in the greateſt part of the writers of antiquity. Hence thoſe contradictions which we ſo often meetwith in the ancient authors of the origin of arts and the worſhip of the gods in Greece. We ſhall ſee more than one example.

ARTICLE I.

Of Tillage.

IF we believe the moſt generally received opinion, the Greeks were indebted for the knowledge of tillage to a queen of Sicily named Ceres [k]. They have joined to her Triptolemus, ſon of Celeus King of Eleuſis [l]. Theſe two perſonages were commonly thought to have ſhewn to Greece

[j] See Herod. l. 2. n. 50.; Plato, in Cratyl. p. 281.

[k] Marm. Oxon. ep. 12.; Virgil. georg. l. 1. v. 147.; Diod. l. 5. p. 333.; Ovid. Metam. l. 5. v. 341.; Hygin. fab. 277.; Plin. l. 7. ſect. 57. p. 412. & 415.; Juſtin. l. 2. c. 6.

[l] Id. ibid.

all

all that concerns agriculture, the uſe of the plough, the way of breaking oxen and fixing them to the yoke, the art of ſowing grain and grinding it [m]. They alſo give to Ceres the merit of having invented carts and other carriages proper to carry burdens [n]. It was, ſay they, Celeus, father of Triptolemus, who firſt taught men to uſe panniers and baſkets [o] to collect and keep the fruits of the earth. The Athenians boaſt of having firſt poſſeſſed the knowledge of all thoſe things, and even of having imparted it to Greece [p]. Such had been the moſt common and generally received ſentiment; but it labours under many difficulties.

Ancient memoirs give to Bacchus the introduction of tillage into Greece [q]. Pliny and other authors have given the honour to one Buzyges an Athenian [r]. An ancient hiſtorian of Crete names for the firſt inventor of agriculture one Philomelus [s]. The Argives, laſtly [t], and the Pheneates [u], diſpute with the Athenians the glory of having firſt known tillage.

We find alſo great contradictions as to the time in which this art began to be eſtabliſhed in Greece. If we follow the moſt common opinion, which gives that honour to Ceres, we ſhall be much embarraſſed about the epoch of that princeſs. The Parian marbles [x], Juſtin [y], and other authors, place the arrival of Ceres in the reign of Erechtheus ſixth King of Athens, 1409 years before Chriſt. How can we reconcile that date with other facts entirely oppoſite, and which appear at leaſt as well ſupported?

Fable and hiſtory agree to make Ceres cotemporary with the Titans, Saturn and Jupiter, *&c.* [z]; an ancient tradition ſays, that this princeſs had learned them to make harveſt [a]:

[m] Ibid. [n] Virgil. georg. l. 1. v. 163. [o] Ibid. v. 165.
[p] Diod. l. 5. p. 333.; Juſtin. l. 2. c. 6.; Ariſtid. orat. *in* Eleuſ. t. 1. p. 257.
[q] Diod. l. 4. p. 232. & 249.; Plut. t. 2. p. 299. B.
[r] L. 7. ſect. 57. p. 415.; Auſon. ep. 22. p. 674. & 675.; Heſychius, *voce* Βοῦζυγες.
[s] Hygin. poet. aſtron. l. 2. c. 4. p. 366.
[t] Pauſ. l. 1. c. 14. [u] Id. l. 8. c. 15. [x] Epoch 12.
[y] L. 2. c. 6. p. 87.
[z] See Apollod. l. 1.; Diod. l. 5. p. 232.
[a] Apollon. Argon. l. 4. v. 988. & 989.

they did not heſitate even to divide with her the honours of divinity. They had built temples to Ceres at the time of the ſon of Phoroneus [b], and Phoroneus paſſed for the firſt mortal who had reigned in Greece [c]. They ſay alſo, that the ancient Hercules, him whom they had put in the number of the *Dactyli Idæi*, had had the guard of the temple of Ceres Mycaleſia [d]. Indeed Herodotus does not make the worſhip of this goddeſs ſo ancient. He ſays, that it was brought into Greece by the daughters of Danaus [e]. Yet this event precedes the reign of Erechtheus more than 100 years *.

With reſpect to Triptolemus, ſome authors have advanced, that he was the ſon of the Ocean [f]. They anciently underſtood by that expreſſion, a perſon who came by ſea in ages very remote. Pauſanias confirms one part of theſe facts. He ſays, that, according to the tradition of the Arcadians, Arcas, grandſon of Lycaon, learned from Triptolemus the manner of ſowing corn, and that of making bread [g]. This Arcas paſſed for one of the ſons of Jupiter [h].

The arrival of Cadmus in Greece falls 1519 years before Chriſt. Through the fabulous tracts which diguiſe the hiſtory of this prince, we juſt perceive, that in his time the art of ſowing grain muſt have been known, otherwiſe they could not have imagined to make him till the earth, to ſow there the teeth of the dragon which he had conquered [i]. But further, an ancient tradition ſays, that Ino, daughter of this prince, wanting to cauſe a ſterility in Bœotia, had engaged thoſe who were to furniſh the ſeeds which were deſtined to be ſown, to place them before the fire to make the ſeed die [k].

We farther ſee, according to ſome authors, that Myles ſon of Lelex firſt King of Laconia was looked upon as the inventor of the millſtone [l]. The reign of this prince pre-

[b] Pauſ. l. 1. c. 39. 40. l. 2. c. 35. See alſo Diod. l. 5. p. 379.
[c] See part 1. book 1. chap. 1. [d] Pauſ. l. 9. c. 27. [e] L. 2. n. 171.
* They have fixed the arrival of Danaus in Greece 1510 years before Chriſt.
[f] Apollod. l. 1. p. 13.; Pauſ. l. 1. c. 14.
[g] L. 8. c. 4. See alſo Strabo, l. 14. p. 990. l. 16. p. 1089.
[h] Pauſ. l. 8. c. 3. [i] Apollod. l. 3. p. 136.; Ovid. metam. l. 3. v. 102. &c.
[k] Apollod. l. 1. p. 31.; Hygin. fab. 2.; Pauſ. l. 1. c. 44. p. 108.
[l] Pauſ. l. 3. c. 22.

ceded

ceded by more than a hundred years the epoch in which they have commonly fixed the arrival of Ceres in Greece. We muſt obſerve on this ſubject, that there muſt have paſſed ſome time between the uſe of agriculture and the invention of the millſtone among the Greeks. Like all other nations of antiquity, theſe people at firſt knew no other method of preparing the grains but that of roaſting them [m].

All theſe conſiderations bring me to think, 1. that the origin of agriculture muſt be more ancient in Greece than is commonly ſaid. 2. That that art has ſuffered interruptions. 3. That the pretenſion of the Athenians of having taught tillage to all the reſt of Greece, is neither well founded nor very exact. This is the manner in which I attempt to reconcile one part of the contradictions which I have mentioned.

I believe we ought to refer the firſt knowledge which Greece had in agriculture, to the times the family of the Titans ſeized on that part of Europe [n]. Theſe princes came out of Egypt, a country where tillage had been practiſed time immemorial. It is to be preſumed that they would inſtruct their new ſubjects in it [o]. They eſtabliſhed at the ſame time the worſhip of the gods honoured in the countries from whence they came. Herodotus [p], Diodorus [q], and all the writers of antiquity, acknowledge that the Ceres of the Greeks is the ſame divinity with the Egyptian Iſis.

The extinction of the family of the Titans, which ended in the perſon of Jupiter, replunged the Greeks into anarchy and confuſion. The people gave themſelves up to lead a wandering and vagabond life: the inhabitants of the coaſt addicted themſelves to ramble over the ſeas, and make a trade of piracy [r]. This ſtate ſubſiſted till the arrival of new colonies which came from Egypt and Phœnicia to eſtabliſh themſelves, ſome time after the Titans, in many

[m] Theophraſt. *apud* ſchol. Hom. *ad* Iliad. l. 1. v. 449.; Euſtath. *ad* hunc loc.; Etymol. magn. *voce* Οὐλοχύτας.

[n] See part 1. book 1. chap. 1.

[o] See Æſchyl. in Prometh. vincto, v. 461. &c.

[p] L. 2. p. 59.

[q] L. 1. p. 18.-31.-107. l. 5. p. 385.

[r] Thucyd. l. 1. p. 4 & 6.; Plut. in Themiſt. p. 121. E.

countries

countries of Greece. This ſpace of time was more than ſufficient to make them loſe the ſmall tincture of the arts which the Greeks had learned under the government of their firſt conquerors. I have ſaid elſewhere it did not appear to have been of long duration [r]. The knowledge and practice of tillage muſt particularly have been aboliſhed ſoon after. This art had had great difficulty of being introduced into Greece. Triptolemus, with whom tradition has divided with Ceres the glory of having ſhewn to the Greeks the culture of grains, found great oppoſition to his deſigns. This is eaſy to be perceived even in thoſe fabulous tracts with which the new mythology had loaded the hiſtory of this prince: he thought more than once that it would have coſt him his life [s]. Ceres was obliged to travel in the air in a chariot drawn by flying dragons [t]: An allegory which muſt be underſtood of the meaſures taken by that princeſs to take Triptolemus from the dangers which the new art he would introduce had brought him into.

Bacchus ran the ſame riſks, when he would inſtruct the Greeks in cultivating the vine [u]. It was not, in reality, a light undertaking to make a change in the manners of ſuch ſort of ſavages, as the Greeks were at that time. It was not eaſy to ſubject to the fatigues of agriculture, theſe independent people accuſtomed to a wandering life, which did not oblige them to have any care or any trouble. Men do not love to be ſubjected to labour, whatever advantages may accrue from it [x].

The floods which happened under Ogyges and under Deucalion, muſt alſo have contributed to make them loſe the knowledge and practice of agriculture: theſe deluges ravaged and laid waſte many countries of Greece [y].

[r] Part 1. book 1.

[s] See Ovid. metam. l. 5. v. 654. &c. Hygin. fab. 147.; Euſeb. chron. l. 2. p. 82.

[t] Apollod. l. 1. p. 13.; Ovid. *loco cit.*; Hygin. poet. aſtr. l. 2. fab. 14.; Ariſtid. orat. in Eleuſ. t. 1. p. 257.

[u] See Hom. Iliad. l. 6. v. 130. &c.; Diod. l. 3. p. 234.; Apollod. l. 3. p. 141.; Ovid. Met. l. 3. v. 514.; Pauſ. l. 1. c. 2.; Hygin. fab. 132.

[x] See part 1. b. 2. ch. 1. art. 2. The example of the ſavages of America is a convincing proof.

[y] See Diod. l. 5. p. 376.; See alſo part 1. b. 1. art. v.; & ſupra, b. 1.

Greece

Greece was then fallen again into the ignorance and barbarity from which the Titan princes had drawn it, when the different colonies which went from Egypt and Phœnicia paſſed ſucceſſively into that part of Europe. The firſt of theſe new colonies was conducted by Cecrops. This prince, at the head of an Egyptian colony, landed in Attica, and ſettled there 1582 years before the Chriſtian æra [a]. Cecrops was not ignorant of agriculture. Cicero tells us that he introduced in Greece the cuſtom of ſpreading of corn, in funeral ceremonies, on the tomb of the deceaſed when they were buried [b]. We may conclude then that Cecrops tried to ſow grain; but diſcouraged, without doubt, by the dry and ſandy ſoil of Attica, he laid aſide that enterpriſe. We ſee that he got his corn from Sicily and Libya [c]. It was not the ſame with olives. Cecrops planted them, and ſucceeded very well. This prince eſtabliſhed afterwards the worſhip of Minerva, becauſe that goddeſs, according to ancient tradition, had made known to men the utility of theſe trees, and learned them to cultivate them [d].

A little while after Cecrops, Cadmus and Danaus, coming one from Egypt, and the other from Phœnicia, paſſed into Greece. Cadmus ſettled in Bœotia, and Danaus in the Argolide. We have juſt ſeen, that, according to all appearances, theſe princes had brought agriculture into the diſtricts where they were ſettled [e].

About one hundred and ſixty-three years after Cecrops, Attica found itſelf afflicted with a very great dearth, becauſe the common convoys, without doubt, had failed them. In this circumſtance Erechtheus conductor of a new Egyptian colony, arrived with a fleet loaden with corn, and delivered the country from the famine which oppreſſed it. The Athenians, in acknowledgment of ſuch an important ſervice, placed him on the throne [f]. Erechtheus ſtudied immediately to put his people in a ſtate not to have any more

[a] Supra, b. 1. [b] De leg. l. 2. n. 25. t. 3. p. 158.
[c] Tzetzes, *ex* Philocor. *ad* Heſiod. op. v. 30. p. 18. edit. in 4to 1603.
[d] See *infra*, art. 3. [e] *Supra*, b. 1. chap. 4. [f] Died. l. 1. p. 34.

recourſe

recourſe to a ſtranger. Judging the plains of Eleuſis more proper than the reſt of Attica for tillage, he cauſed it to be ploughed and ſown [a]. He had the happineſs to ſucceed in this undertaking, and to accuſtom the Athenians to tillage.

Diodorus, from whom we have taken one part of this recital, adds, that Erechtheus taught the Athenians the worſhip of Ceres, and eſtabliſhed at Eleuſis the myſteries of that goddeſs, ſuch as they were practiſed in Egypt. This is what has given room to ſay, according to the remark of the ſame hiſtorian, that Ceres herſelf was come to Athens, and to place at that epoch the diſcovery of corn, which was then brought from Egypt to the Athenians, under the name and under the auſpices of that goddeſs [b]. We have ſeen that the Ceres of the Greeks was the ſame divinity as the Iſis of the Egyptians, to whom, according to the tradition of theſe people, they owed the knowledge of tillage. Erechtheus having ſucceeded in his enterpriſe, it was natural that he ſhould eſtabliſh the worſhip of Iſis. It was from a ſimilar motive that Cecrops, as I have juſt ſaid, had inſtituted the worſhip of Minerva.

But the origin of agriculture, and that of the worſhip of Ceres, were more ancient in Greece than the reign of Erechtheus: we cannot doubt of this after the different traditions which I have reported. I think then that the eſtabliſhment of the myſteries of Ceres at Eleuſis, and the knowledge of tillage which they place under Erechtheus, ought only to be regarded as a renewal or re-eſtabliſhment of ancient cuſtoms which the troubles and miſery of the times had inſenſibly aboliſhed.

The worſhip of Ceres was greatly eſteemed in Greece, under the reign of Erechtheus: nothing is more famous in antiquity than the myſteries celebrated at Eleuſis. That feaſt, at firſt peculiar to the inhabitants of Attica, became afterwards common to all the Greeks. Yet the Argives

[a] Marm. oxon. ep. 13.; Diod. l. 5. p. 385.; Juſtin. l. 2. c. 6. p. 87.; Phurnut. de nat. deorum, c. 28. p. 209.

[b] *Loco cit.* & l. 5. p. 333.

had

had received the worſhip of Ceres before the Athenians. But whether it was that they did not know all the myſteries, or from motives at preſent unknown to us, the honour of having communicated to all Greece the worſhip of Ceres, remained to the Athenians. As in the idea of theſe people, the knowledge of tillage was joined to the eſtabliſhment of the myſteries of Eleuſis, they would make us believe, that Greece was equally indebted to them for both diſcoveries. Yet we ſee that ſome Greek cities proteſted againſt this pretenſion: but it does not appear they paid any regard to it. The plurality of votes was declared for the Athenians: they paſs, in almoſt all the ancient writings which now remain to us, to have poliſhed Greece. It is to the pens of their writers, that, without doubt, they owe this pre-eminence. The Athenians, vain to exceſs, have always boaſted of having communicated the arts, the laws, and the ſciences, to all the reſt of the Greeks. Argos, Thebes, and ſome other cities, where the origin of arts to me appears almoſt as ancient as in Attica, have produced neither ſo many writers, nor of a merit equal to thoſe of the Athenians. The writings of the Athenians have always carried it. The ancient authors, even the Romans, fed by theſe writings, have got thoſe ideas of a ſuperiority which the Athenians had at all times thought proper to arrogate: they have adopted them, and have tranſmitted them to us. This is perhaps the ſource of that anteriority of knowledge, which the Athenians enjoy even at this time. Theſe indeed are only conjectures: but it is an expedient to which we are too often obliged to have recourſe when we treat of events of this high antiquity.

If agriculture, as I ſuſpect, had been difficult to be introduced among the Greeks in the firſt ages, theſe people afterwards thought very differently. In all the ſtates formed by the new colonies of which I have ſpoken, the ſovereigns applied themſelves to divert their ſubjects from the cuſtom of rambling upon the ſeas. They uſed various methods to bring them to cultivate the earth: I have ſpoken

[1] See Herod. l. 2. n. 171. [2] Paſ. l. 1. c. 14.

of

of it in the article of government [k]. Their deſign ſucceeded, the Greeks were not long of perceiving and acknowledging the advantages of agriculture: they gave themſelves up to it with much ardour and ſucceſs.

Barley was the firſt ſpecies of grain which the Greeks cultivated [l], and the plains of Rharia were the firſt which were ſown in Attica [m]. The ſorts of grains which were ſown there are not indeed ſpecified by the marbles; the word is effaced, but we may ſupply it from Pauſanias. This author ſays, that, in remembrance of the firſt eſſays of agriculture, the ſort of cakes which the Athenians uſed in their ſacrifices were ſtill made in his time with barley gathered from the fields of Rharia [n]. We are ignorant in what time they began to cultivate in Greece wheat and other grains. There is room, for example, to doubt, if in the ages we now ſpeak, or even for a long time afterwards, the Greeks had any knowledge of oats. We ſee that in the time of the war of Troy barley was the common food of the horſes [o].

Homer and Heſiod are the only perſons who can give us any knowledge of the manner in which the ancient Greeks cultivated their lands. We may judge of theſe original practices by thoſe which ſubſiſted in the times of theſe authors. It appears that they then gave three ploughings to the ground [p]. Two ſorts of ploughs were in uſe:

[k] B. 1. art. 8. p. 65. & 66.

[l] Dionyſ. Halicarn. l. 2. p. 95.; Plut. t. 2. p. 292. B.; Plin. l. 18. ſect. 14. p. 168.; Pauſ. l. 1. c. 38.; Pindar. ſchol. ad Olym p. od. 9. p. 93.

[m] Marm. Oxon. ep. 13. Plutarch ſeems to oppoſe this tradition. t. 2. p. 144. A.

[n] L. 1. c. 38. [o] Odyſſ. l. 4. v. 41.

[p] Ibid. l. 5. v. 127.; Heſiod. Theog. v. 971. See Salmaſ. Plin. exercit. p. 509. &c.; Le Clerc, not. *in* Heſiod. p. 264. & 266.

I think we perceive a glimpſe of that ancient practice in the name of Triptolemus. Le Clerc, according to his cuſtom, has ſearched in the oriental languages the etymology of this word. Triptolemus, according to his opinion, ſignifies *breaker of the ridges*. Bibl. univerſ. t. 6. p. 54. & 91.

But I think that it would be more natural to draw the name of Triptolemus from two Greek words Τρις & πελω, *ter verſo*.

This name probably has alluſion to the cuſtom of ploughing the land three times; a cuſtom which the tradition of the Greeks implies, without doubt, to have been ſhewn by Triptolemus. A paſſage of Heſiod ſeems to favour this conjecture. See Theog. v. 971.

one

one which was only a ſingle piece of wood; the other, more compounded, conſiſted of two pieces of wood contrived in ſuch a manner that one part made the body of the plough, and the other ſerved to yoke the oxen to. I have borrowed from Heſiod this deſcription [q]: but I confeſs, at the ſame time, it is not eaſy to form a clear and perfect idea of all its conſtruction. We may ſay in general, that theſe ploughs were very ſimple; they had no wheels, and we do not find that they had any iron about them *.

Oxen and mules appear to have been the animals which the Greeks made uſe of moſt commonly for tillage [r]. They uſed mules preferably to oxen when they wanted to open the earth lightly, as when they gave to the field a ſecond ploughing [s]. We may conjecture alſo, and with much reaſon, that horſes were ſometimes uſed in this work [t].

The Greeks had been a long time without the knowledge of the harrow. This machine does not appear to have been in uſe even in the time of Heſiod. We ſee in reality, that this poet employs a young ſlave to cover with a ſpade the ſeeds ſpread on the ſurface of the earth [u].

The cuſtom of manuring the grounds was eſtabliſhed very anciently in Greece. Pliny attributes the invention of it to Augeas, ſo famous in Greek antiquity for the immenſe quantity of his flocks [x]. The care of cleaning the ſtables

[q] We may conjecture this from the epithets that the poet gives to the two ploughs of which he ſpeaks. Oper. & Dies, v. 432. & 433. See Grævius. lection. Heſiod. p. 48. & 49.; Hom. Iliad. l. 10. v. 353. & ſchol. *ad* hunc verſ.

* They might object, that Homer, Iliad. l. 23. v. 835. in ſpeaking of a maſs of iron, ſays, that it might be of great uſe to an huſbandman, and conclude from thence that it ſhould enter into the conſtruction of ploughs. But I think that the poet would only ſay, that iron was proper to make many of the tools of which they had need for the country, ſuch as ſickles, axes, *&c.* The reaſon on which I ground this is, that if they had uſed iron in the conſtruction of ploughs, the ſhare, without doubt, ought to have been made of it. But Heſiod, who was probably poſterior to Homer, ſays plainly that the ſhare was made of a ſort of oak very hard, called πρῖνος. Op. & Dies, v. 436.

[r] Heſiod. op. & dies. v. 46.

[s] See Iliad. l. 10. v. 351. &c.; Odyſſ. l. 8. v. 124.

[t] Heſiod. op. & dies, v. 816. [u] Id. Opera, v. 469. &c.

[x] L. 17. ſect. 6: p. 55.

of this prince was, ſay they, one of the labours which Euryſtheus impoſed on Hercules [y]. What is certain, is, that the ſecret of meliorating the grounds and fertilizing them by means of manure, was known to the Greeks in the moſt ancient times. Homer ſpeaks of it preciſely [z]. Cicero [a] and Pliny [b] had already remarked it [c].

Theſe people had a manner of making their harveſt, different from that which we practiſe at preſent. Their reapers did not range themſelves in a line as ours do. They divided themſelves into two parties, and each taking an end of a ridge, advancing one againſt the other, they met about the middle of the field [d]. The Greeks did not heap up their grains in ſheaves in the barns, as is our practice. They put them in veſſels of earth, or in baſkets deſtined for that purpoſe [e]. Inſtead of beating the corn with flails, they made the oxen tread it [f]. There is great reaſon to think, that the fan which they uſed, had no reſemblance to ours. We may conjecture that this machine was made a good deal like a ſhovel [g].

I have already ſaid elſewhere, that the Greeks originally, like all other people, had been ignorant of the art of reducing their grain to meal. They then eat it green and half roaſted *. They learned afterwards to grind it. This art muſt have been very rude in the beginning. They knew nothing but the peſtle and mortar to reduce the grain into flour [h]. The Greeks, by degrees, had in uſe hand-mills.

[y] Diod. l. 4. p. 259.; Pauſ. l. 5. c. 1. p. 377.
[z] Odyſſ. l. 17. v. 297. &c.
[a] De ſenect. n. 15. t. 3. p. 312.
[b] L. 17. ſect. 6. p. 55.
[c] The paſſage of Homer meant by Cicero and by Pliny, is found in the the Odyſſey, l. 23. v. 225. & 226.
They ſpeak of Laertes, father of Ulyſſes, whom Homer, according to theſe two authors, repreſents employed in manuring his lands. It is in this ſenſe that they tranſlate the word λισφαίνοντα, uſed by this poet, though literally this word means ſimply, to *raiſe* or *rake*. But without having recourſe to this paſſage, which may be dubious, we find in that which I have quoted the cuſtom of manuring the grounds eſtabliſhed in a preciſe manner.
[d] Iliad. l. 11. v. 67. &c.
[e] Heſiod. op. v. 475. & 482. &c.
[f] Iliad. l. 20. v. 495. &c.
[g] Odyſſ. l. 11. v. 125. See the notes of Mad. Dacier.
[*] Supra, p. 179.
[h] Heſiod. op. v. 423.

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We have ſeen, that they gave the honour of this invention to Myles ſon of Lelex firſt King of Laconia *. Theſe machines, notwithſtanding, were very imperfect. They were ignorant then of the art of making them move by means of water and of wind. The ancients, during many ages, knew nothing but hand-mills. In Greece [i], as well as in Egypt [k], it was the women who were charged with the labour of turning the mill.

The Greeks had a cuſtom of giving to the grains, before they ground them, many preparations which proved how very imperfect the machines were which they employed in that operation. They began by ſteeping the grains in water. They then left them to dry for a whole month; and afterwards dried them by the fire. It was only after all theſe operations that they brought their corn to the mill [l]. I have explained elſewhere the motives of all theſe preparations [m].

I have nothing particular to ſay of the manner in which the Greeks uſed the flour in the firſt times. I have ſpoke ſufficiently of theſe ancient practices in the firſt part of this work [n]. We cannot determine the time in which the art of making bread began to be known in Greece. Tradition gives the honour of this invention to the god Pan [o]. We ſee by Homer, that this diſcovery muſt have been very ancient [p]. I ſhall remark farther, that in the heroic times the women appear to have been the only perſons who concerned themſelves in the care of preparing this aliment [q].

* Supra, p. 179.
[i] Odyſſ. l. 7. v. 103. &c. l. 20. v. 105. &c.
[k] See part 1. book 2. chap. 1.
[l] Plin. l. 18. ſect. 14. p. 108.
[m] Part 1. book 2. chap. 1.
[n] Book 2. chap. 1.
[o] Caſſiodor. var. l. 6. formul. 18. p. 106.
[p] Iliad. l. 9. v. 216.; Odyſſ. l. 1. v. 147.
[q] See Odyſſ. l. 7. v. 103. &c. l. 18. v. 559. & 560.; Herod. l. 8. n. 137.

ARTICLE II.

Of the art of making wine.

THE epoch in which the Greeks had begun to cultivate the vine, and to know the art of making wine, labours under almoſt as many difficulties as that of tillage. The Athenians pretend equally to have communicated this knowledge to all Greece[r]. They place the epoch in the reign of Pandion the Firſt[s], fifth King of Athens, 1463 years before Chriſt. But they were not agreed about the author of this diſcovery. Some give that honour to Bacchus[t], others to one Eumolpus, who had, ſay they, quitted Thrace, his original country, to come and ſettle in Attica[u]. I do not think we ought to pay much regard to this pretenſion of the Athenians. In all reſpects, it appears to me to have no foundation.

The greateſt part of ancient authors agree to give the diſcovery of the vine to Bacchus. They acknowledge, it is true, many perſons who have borne that name; nevertheleſs, it is only to one who paſſed for the ſon of Jupiter. We ought, therefore, to make the firſt knowledge which the Greeks had of making wine, to aſcend to the ages in which the Titans had reigned in that part of Europe; and I think in reality, that the culture of the vine had been introduced among the Greeks under the dominion of theſe princes. But it muſt have been with this knowledge, as with many others which were aboliſhed in the trouble and confuſion which the extinction of the family of the Titans, and the deſtruction of their empire, occaſioned in Greece.

I have already ſaid, that ſome time after this event, the

[r] Apollod. l. 3. p. 197.; Hygin. fab. 130.; Juſtin. l. 2. c. 6.; Pauſ. l. 1. c. 2.; Propert. l. 2. eleg. 33. v. 29.

[s] Apollod. l. 3. p. 197. [t] Id. ibid.; Hygin. fab. 130.

[u] Plin. l. 7. ſect. 57. p. 415. Pliny makes this Eumolpus an Athenian, but he is wrong. He was originally of Thrace, from whence he came to ſettle at Athens. See Strabo, l. 7. p. 494.

conductors

conductors of new colonies, had brought into Greece the arts under the auſpices of the gods honoured in the countries from whence they came: depending on this principle, I conjecture, that Bœotia had been the firſt diſtrict of Greece where the culture of the vine had been renewed. Cadmus, at the head of a Phœnician colony, ſettled there 1519 years before the Chriſtian æra. This prince had learned, in his travels, the art of planting the vine. He made it known to his ſubjects, and eſtabliſhed at the ſame time the worſhip of Bacchus, to whom the tradition of the people of the Eaſt had given the honour of the diſcovery of wine. Every thing ſeems to favour this ſyſtem. The Greeks ſaid, that their Bacchus was the iſſue of Jupiter and of Semele, daughter of Cadmus. Herodotus gives us the explication of this fable, by teaching us, that this prince introduced the worſhip of Bacchus into Greece [x]. Yet I believe, from the reaſons I have already given, that Cadmus only made a renewal of it.

The Greeks had very particular methods of making wine. After having cut the grapes, they expoſed them ten days to the ſun and to the coolneſs of the night. They put them afterwards into the ſhade for five days, and the ſixth they ſtamped them [y]. This method was very long and very troubleſome. It was with great difficulty they could make a large quantity of wine at a time. They muſt have had a conſiderable quantity of ground to ſpread and expoſe the quantity of grapes ſufficient to make, for example, ten butts of wine. And there muſt not have been a leſs ſpace, and more precautions afterwards to make theſe grapes dry in the ſhade. All theſe methods were ſubject to great inconveniencies. The wine at that time muſt have been very dear in Greece, although they collected a great quantity. We may alſo judge of this, by the epithets which Homer gives to many of theſe countries.

[x] L. 2. n. 49.

[y] Odyſſ. l. 7. v. 122. &c.; Heſiod. oper. v. 611. &c. See Mad. Dacier's notes on the 7th book of the Odyſſey, p. 160.

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The Grecks did not keep their wines in caſks. The uſeful invention of theſe veſſels of wood ſo commodious, was unknown to them. They put their wines in borachios, and very often into great veſſels of earthen ware [z]. The Athenians were particularly famous for making of theſe ſorts of veſſels [a]. But the cuſtom of keeping the wine in theſe earthen veſſels, liable to be broken, or in theſe leather-bags, ſubject to contract bad ſmells, or to unrip, rendered at that time the carriage of wines very difficult, and the keeping of them leſs ſure than with us at preſent.

Wine, if we believe ſome authors, was not the only preſent which Bacchus made to the Grecks. After the example of Oſiris, he taught them to compoſe with water and barley, a liquor, which, for ſtrength and goodneſs, approached to wine [b]. Ovid, ſpeaking of the meeting that Ceres, exhauſted with wearineſs, had with an old woman named Baubo, ſays, that the goddeſs, having demanded ſome water, the old woman preſented her with a liquor compoſed of dried grain [c]. It ſeems that the authors whom I cite would mean beer; but we may doubt if the knowledge of that liquor had been as ancient in Greece as they ſay. Homer never mentions it. Is it with deſign? or rather, is it not a mark, that in his time beer was not in uſe?

ARTICLE III.

Of the art of making oil.

THough I have thought we ſhould refuſe to the Athenians the honour of having communicated to all Greece tillage and the culture of the vine, I ſhall not ſay ſo much of all that concerns the plantation of olives and

[z] Odyſſ. l. 9. v. 196.; Iliad. l. 9. v. 465.; Herod. l. 3. n. 6.; Diod. l. 5. p. 380.; Plin. l. 35. ſect. 46. p. 711.

[a] See Caſaub. not. in Athen. l. 1. c. 22. p. 65.

[b] Diod. l. 4. p. 248.

[c] Metam. l. 5. v. 449. &c.

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the art of drawing oil from their fruit. Attica appears to have been inconteſtably the firſt country in Greece, in which that part of agriculture is ſaid to have been known [a]. The Athenians were indebted for it to Cecrops. This prince came from Sais [c] a city of the Lower Egypt, where the culture of the olive-tree was the principal occupation of the inhabitants [e]. Cecrops, who found the ſoil of Attica very proper for that ſort of trees, took care to have them planted [f]. The ſucceſs anſwered his expectation. Athens in a little time became famous for the excellence of its oil. It was even anciently the only place in Greece where olives were to be found [h].

Antiquity thought they were indebted to Minerva for the diſcovery of this tree [i]. Moreover this goddeſs was particularly reverenced at Sais [k]. The culture of the olive was then brought into Greece under the auſpices of Minerva. Cecrops, in imparting that knowledge to the inhabitants of Attica, took occaſion to eſtabliſh, at the ſame time, the worſhip of that goddeſs [l]. The feaſt of Minerva was celebrated at Athens [m] in the ſame manner as at Sais [n], by lighting an innumerable quantity of lamps. The Greeks have propagated many fables about all theſe events; they relate, that Minerva and Neptune had entered into a diſpute about the honour of giving a name to the city of Athens. The queſtion was to determine this diſpute. Some ſaid, that they would refer it to Cecrops [o], others, that the oracle ordered all the people to be aſſembled [p]; ſome, laſtly [q], that the twelve great gods were choſen to judge of the diſpute. However it was, they determined, that thoſe of the two divinities who could produce the moſt

[a] Herod. l. 5. n. 82.; Ælian. var. hiſt. l. 3. c. 38.; Juſtin. l. 2. c. 6.
[c] Diod. l. 1. p. 33. [e] Herod. l. 2. n. 59. & 62.
[f] Syncell. p. 153. B. [h] Herod. l. 5. n. 82.
[i] Virgil. georg. l. 1. v. 18.; Diod. l. 5. p. 389.
[k] Herod. l. 2. n. 59. & 62.; Cicero de nat. deor. l. 3. n. 23. t. 2. p. 506.
[l] Pauſ. l. 1. c. 27. l. 2. c. 36.; Euſeb. praep. evang. l. 10. c. 9. p. 486.
[m] Marſh. p. 128. [n] Herod. l. 2. n. 62. [o] Euſeb. chron. l. 2. p. 75.
[p] Varro *apud* Auguſt. de civit. Dei, l. 18. chap. 9.
[q] Apollod. l. 3. p. 192.

uſeful

uſeful invention ſhould name the city they were building. Neptune, with a ſtroke of his trident, made a horſe come out of a rock: Minerva, by ſtriking the earth with a lance, made an olive-tree come up: this production got her the victory. The explication of this fable is not very difficult to penetrate into.

It appears that it was not without ſome difficulty that Cecrops engaged the inhabitants of Attica to apply themſelves to the culture of olive-trees. The eſtabliſhment of the worſhip of the gods was at that time too intimately connected with the eſtabliſhment of the arts to receive one without the other. To adopt the worſhip of Minerva, was to declare that they would apply themſelves to thoſe arts of which that goddeſs paſſed for the inventreſs. The ancient inhabitants of Attica, profiting by their neighbourhood to the ſea, were accuſtomed to piracy. Neptune of conſequence was their tutelar divinity. One party oppoſed the new eſtabliſhment of Cecrops; he would change the ancient manner of life. This prince nevertheleſs found the means to gain the greateſt number of the inhabitants, and the plurality of votes gave it for the worſhip of Minerva, that is to ſay, the preference to agriculture.

Yet we ſee in the circumſtances of this fable, that ſpirit of vanity which, in the latter times, has brought the Greeks to invent the moſt extraordinary fictions to bring back to their gods the invention and merit of all the arts. They had received them from their firſt ſovereigns, who coming out of policed countries, had brought into Greece the diſcoveries forgotten or unknown till their arrival. They had introduced at the ſame time the worſhip of the gods who were thought to be the authors of all theſe inventions. They inſenſibly confounded the hiſtory and motives of theſe eſtabliſhments. The Greeks naturally vain, and lovers of the marvellous, perplexed the ideas and obſcured tradition, to attribute to the divinities which they had created, the diſcovery of all the arts.

I have ſpoken in the firſt part of this work of the different methods invented originally to give light in the night. We have

have there ſeen that the more or the leſs induſtry in the ways which men invented to remedy the obſcurity of darkneſs, diſtinguiſhed barbarous people from poliſhed nations. If this propoſition is true, we may ſay, that, in this reſpect, the Greeks in the heroic ages did not differ any thing from the people of whom we now form the moſt diſadvantageous idea. Their little induſtry had not permitted them to procure any of the proper means to give light eaſily and commodiouſly during the night.

The Greeks were not at that time ignorant of the art of making oil: yet they had not the uſe of lamps. They likewiſe knew wax and tallow, but had not found the ſecret to draw from them their principal utility. Theſe people, at the times I am ſpeaking of, were lighted only by fires which they had in their apartments[r]. The princes, and thoſe who piqued themſelves upon delicacy, burnt odoriferous woods[s]. Virgil has conformed to the cuſtom of theſe ancient times, when he ſays that Circe made them burn cedar to light her[t].

With regard to torches which are often mentioned and ſpoken of in Homer, they were pieces of wood ſplit lengthwiſe, which they carried in their hand when they went in the night from one place to another[u]. I have ſhewn, in the firſt part of this work, the antiquity and the univerſality of this practice[x]. I ſhall add, that probably they employed for this uſe reſinous woods.

Homer, indeed, has uſed on one occaſion a term which at firſt ſight would make us think the Greeks knew lamps in the heroic times. He tells us in the Odyſſee, that Minerva took a vaſe of gold to light Ulyſſes[y]: but it is more than probable that this vaſe was not a lamp. In reality, there is never any thing ſpoken of by this poet which has any relation to theſe ſort of machines: we ſee on the contra-

[r] Odyſſ. l. 6. v. 305. l. 18. v. 306. *&c.* l. 19. v. 63. *&c.*
[s] Odyſſ. l. 5. v. 59. & 60.
[t] *Urit odoratam nocturna in lumina cedrum.* Æneid. l. 7. v. 13.
[u] Odyſſ. l. 18. v. 309. 310. & 316. [x] B. 2. chap. 1. art. 4.
[y] L. 19. v. 34.

ry, that on all occaſions where he could have placed lamps, he only ſpeaks of burning torches. Alſo the ſcholiaſts believe, that the word which Homer has uſed to deſign the vaſe carried by Minerva, ſhould be underſtood of a ſheath of gold into which they had put a torch [z]. I ſhould rather think that they meant a ſort of chafing-diſh into which they put pieces of wood to make the fire lively and clear. The Turks uſe even at this day to give them light, machines very like them [a].

But be it as it would, we may be aſſured that there is no mention made in Homer of oil, of wax, or of tallow to give light. The Greeks in the heroic times never uſed tallow, or, to ſpeak more properly, greaſe, but to rub and ſoften things which time had hardened [b]. With reſpect to wax, although they knew it, they employed it for quite another uſe than to burn *. As to oil, they inconteſtably never uſed it but to anoint and rub themſelves. I confeſs, that lamps being ſo ancient in Aſia and in Egypt as we have ſeen [c], it is very aſtoniſhing that the knowledge of them had not as yet got into Greece at the time of the war of Troy, but their ignorance in this reſpect is not leſs certain.

ARTICLE IV.

Of the culture of fruit-trees.

IT is certain that the Greeks did not apply very early to the culture of fruit-trees. Figs and pears appear to

[z] Ad Odyſſ. l. 19. v. 34. [a] Trev. Mars. 1721. p. 373.

Homer only deſigns what Minerva took to light Ulyſſes with, by the word λύχνον. It is certain, that, in the ages poſterior to Homer, they conſtantly underſtood by λύχνος, a lamp; but I do not think, that, in Homer, that word ought to have the ſame ſignification; for he never ſpeaks of oil for giving light. I ſhould think then that λύχνος, in this paſſage, means a ſort of chafing-diſh, where they put little pieces of lighted wood. Moreover, this is the only time that the term λύχνος is found in Homer.

[b] See Odyſſ. l. 21. v. 178. *&c.*

* They covered with wax, ſhips, tablets of wood to write on, *&c.* The only time it is mentioned in Homer, is on account of Ulyſſes, who, the poet ſays, uſed wax to ſtop the ears of his companions, to hinder them from hearing the voice of the Syrens. Odyſſ. l. 12. v. 173.

[c] Part. 1. b. 2. chap. 1. art. 4.

be

be the firſt ſort of fruits which they knew [d]: we may add to theſe apples. We indeed ſee fig-trees, pear-trees, and apple trees in the deſcription, which Homer gives of the orchard of Laertes [e], father of Ulyſſes. Figs particularly were regarded as the firſt aliment of agreeable taſte which the Greeks uſed [f]. The different traditions which theſe people have propagated about the epoch in which they had known this fruit, prove, as I have already ſaid, that the firſt principles of agriculture were very anciently known in Greece; that this art had ſuffered interruptions. Some in reality carry back the knowledge of the fig-tree to Bacchus [g], and place that event under Pandion I. [h], who reigned at Athens 1463 years before Chriſt. Others give this honour to Ceres [i], whoſe arrival in Greece they fix in the reign of Erechtheus [k], 1426 years before the Chriſtian æra. But, following another tradition, the Greeks had known the fig-tree long before theſe epochs. This tradition imported, that Syceus, one of the Titans, ſon of the earth, being purſued by Jupiter, the tender mother had made the fig-tree come out of her boſom to ſerve for an aſylum and the nouriſhment at the ſame time of this well-beloved ſon [l].

All theſe variations make us ſee that the Greeks had received ſome knowledge of agriculture under the dominion of the Titans. The troubles which aroſe upon the death of theſe princes, made them neglect the culture of the earth, which the new colonies that came out of Egypt and Phœnicia reſtored again to honour in Greece, about the commencement of the ages we are now running over.

We cannot enter into any detail of the manner in which the Greeks cultivated fruit-trees in the heroic times. There is nothing can inſtruct us in it: I think they were at that time very ignorant in this part of agriculture. They have not thought fit to reduce it into precepts. I fancy I have

[d] Ælian. var. hiſt. l. 3. c. 39.; Plut. t. 2. p. 303. A.
[e] Odyſſ. l. 24. v. 337. *&c.*
[f] Athen. l. 3. c. 2. p. 74.
[g] Athen. c. 5. p. 78.
[h] Apollod. l. 3. p. 197.
[i] Pauſ. l. 1. c. 37. p. 89.
[k] Marm. Oxon. ep. 12.
[l] Athen. l. 3. c. 5. p. 78.

ſufficiently proved elſewhere, that the art of grafting was then abſolutely unknown [m]. To the proofs which I have given, we may add the reflection which Heſiod made with reſpect to olive-trees. This author, according to Pliny [n], ſaid that no man had ever ſeen the fruit of the olive-tree which he had planted; a ſign that in his time the Greeks yet underſtood very little of the culture of fruit-trees.

I ſhall obſerve further on the ſubject of fig-trees, that the tree to which they gave that name in Greece, was not of the ſame ſpecies with that which grows in our climates. That ſort of fig-tree is much more fertile than ours [o], but its fruits cannot come to maturity before they have been pricked by inſects, which ingender in the fruit a certain ſort of wild fig, called by the ancients *Caprificus*. Thus they took great care to plant them on the ſides of their domeſtic fig-trees [p]. This cuſtom is continued even at this time in the iſles of the Archipelago [q]. We muſt obſerve further, that theſe ſort of figs are far from being comparable to ours, for goodneſs and delicacy [r].

I think I can add to this article ſome other practices which have a great relation to agriculture, taken from the general idea of the productions and labours of the country.

The moſt common and the moſt ordinary arts are not certainly the leaſt uſeful. Strabo, ſpeaking of the ancient inhabitants of Great Britain, obſerves that theſe people who had many herds, did not know the art of curdling the milk, and making it into cheeſe. He gives, with great reaſon, this fact as a mark of the groſſneſs and ignorance of that nation [s]. The Greeks, in the ages we are at preſent ſpeaking of, were not ſo deſtitute of knowledge. They were inſtructed in the art of making cheeſes. Homer ſpeaks often of them [t]. The Greeks pretend to have been indebted for

[m] See *ſupra*, chap. 1. p. 86. & 87. [n] L. 15. ſect. 2. p. 732.
[o] Tournefort, voyage du Levant, t. 1. p. 340.
[p] Ariſt. hiſt. animal. l. 5. c. 32. p. 857.; Theophraſt. de cauſ. plant. l. 2. c. 12. p. 246.; Plin. l. 15. ſect. 21. p. 747.; Athen. l. 3. c. 4. p. 76. 77.
[q] Tournefort, *loco cit.* p. 338. &c.
[r] Ibid. p. 340. [s] L. 4. p. 305.
[t] Iliad. l. 11. v. 638.; Odyſſ. l. 7. v. 225.

that

that knowledge to Ariſteus King of Arcadia [u]. He had, ſay they, moreover taught them the art of raiſing bees, and making uſe of their honey [x]. I ſhould doubt much of this laſt fact. It appears that in the heroic times they did not know in Greece the uſe of hives. We may conjecture this from a paſſage in which Homer compares the army of the Greeks to a ſwarm of bees. He does not make them come out of a hive, but out of the cliffs of a rock [y].

CHAP. II.

Of Cloathing.

THE manner in which the firſt inhabitants of Greece were clothed, anſwered to the groſſneſs of their manners. The ſkins of beaſts which they killed in the chaſe ſerved them for covering; but not knowing the art of preparing theſe ſkins, they wore them quite rough, and with the hair on [z]. The only ornament which they could imagine, was to wear the fur without [a]. The ſinews of animals ſerved them for thread. Thorns without doubt held the place of needles and bodkins. There remain yet in the writings of Heſiod traces of theſe ancient cuſtoms [b].

We are ignorant in what time the Greeks learned the art of giving to ſkins convenient preparations, as to tan them, to curry them, *&c.* Pliny makes one Tychius, a native of Bœotia [c], author of this invention, without marking in what

[u] Juſtin. l. 13. c. 7.
Ariſteus had married Autonoe, daughter of Cadmus. *Heſiod. Theog.* v. 977.; Diod. l. 4. p. 324.

[x] Diod. Juſtin. *locis cit.*

[y] Iliad. l. 2. v. 87. *&c.* We find indeed in Heſiod, Theog. v. 594. & 598. theſe words σμήνος and σίμβλος, uſed afterwards to mean the hives where the bees make their honey. But independently of theſe two words not being found in Homer, and that we have many reaſons to think Heſiod poſterior to this poet, I would not even conclude from the words of Heſiod, that the Greeks knew in his time the art of gathering the bees into hives. If this practice had been known in the ages in which Heſiod wrote, he would probably have given ſome precepts, as Virgil has done in his Georgics.

[z] Diod. l. 2. p. 151.; Paul. l. 8. c. 1. p. 599. [a] Paul. l. 10. c. 38. p. 895.

[b] See Heſiod. opera. v. 544. [c] L. 7. ſect. 57. p. 414.

age

age this artiſt lived. Homer ſpeaks of a workman of this name greatly celebrated, in the heroic times, for his ſkill in preparing and dreſſing ſkins. Among other works he had, ſays he, made the ſhield of Ajax[c]. Yet there is no appearance that this ſhould be the ſame perſon to whom Pliny has attributed the invention of currying ſkins. This art muſt have been known in Greece long before the war of Troy; but it is not poſſible to determine preciſely the epoch.

It is not the ſame with reſpect to weaving. I think we may very well refer this eſtabliſhment in Greece to the time of Cecrops. This prince came from Egypt, where the art of ſpinning wool, and the art of making ſtuffs, was known very anciently. He made known this invention to the inhabitants of Attica. The few memoirs which now remain to us of the origin of weaving in Greece, agree very well with this conjecture. The Athenians were looked upon in antiquity as the firſt who had known the art of making ſtuffs of wool and flax. They are ſaid even to have communicated theſe diſcoveries to all Greece[d]. We likewiſe know that Athens in all times has been renowned for the ſkill of its inhabitants in weaving. The quality of the ſoil of Attica contributed much to the rapid progreſs which this art made among theſe people. The wool of that country was reckoned, in the judgment of the ancients, the beſt that was known[e].

It is very important for the quality of the wool to keep the ſheep in very great neatneſs. We could not carry our attention farther, in this reſpect, than certain people of Greece carried it. To procure the fineſt and beſt-conditioned wool, their precaution went ſo far as to cover the ſkins of their ſheep[f], leſt the injuries of the air ſhould alter the fleece, and leſt they ſhould contract any dirt.

We ſee by the manner in which the Greeks anciently ſtript their ſheep of their wool, how imperfect the mechanic arts were among thoſe people in the early times. There is a certain time of the year when the wool of the ſheep

[c] Iliad. l. 7. v. 220. *&c.*
[d] Juſtin. l. 2. c. 6. [e] See Voſſius de idol. l. 3. c. 70.
[f] Ælian. var. hiſt. l. 12. c. 56.; Diog. Laert. l. 6. ſegm. 41. p. 335.

comes

comes off of itself. The Greeks took advantage of that time to procure the wool of these animals, and tore it off [g]. It was because they wanted sheers at that time, or other instruments proper for that operation. This custom did not subsist in the time of Hesiod, they knew then to shear their sheep [h].

I have said, in the first part of this work, that anciently the mechanics were disposed in such a manner that they could only work standing [i]. This custom subsisted still in Greece to the heroic times, Homer not permitting us to doubt of it [k]. Moreover, the stuffs which they then made, were very badly prepared. They had not yet found the art of fulling them. That art was not known in Greece till some time after the ages which we are at present speaking of. They give the honour of it one Nicias of Megara [l].

A very curious question presents itself to us on this subject, the examination of which deserves some attention. Homer gives us to understand, that at the time of the war

[g] Varro, de re rust. l. 2. c. 11.; Plin. l. 8. sect. 73. p. 474.; Isidor. orig. l. 19. c. 27.

[h] Op. & Dies, v. 775. [i] B. 2. chap. 2.

[k] Iliad. l. 1. v. 31. See Jun. de pict. veter. l. 1. c. 4. p. 26.

It may be objected what Homer says of the Phaeacians, Odyss. l. 7. v. 105. & 106.

Αἱ δ' ἱστοὺς ὑφόωσι καὶ ἠλάκατα στρωφῶσιν
Ἥμεναι, ...

and from thence conclude, that, in the heroic times, the women had already quitted the troublesome custom of working standing. But there is the greatest reason to think, that the word ἥμεναι ought only to refer to those that spun, and not to those that worked at any trade. This is the more certain, as Eustathius, to whom this passage was not unknown, says positively, in commenting on the 31st verse of the 1st book of the Iliad, that, in the times of Homer, the women did not yet work sitting.

[l] Plin. l. 7. sect. 57. p. 414.

Pliny, by saying that this Nicias was of Megara, gives us to understand, that the art of fulling stuffs was not known till after the ages of which we now speak. Megara, in reality, according to Strabo, had not been built till after the return of the Heraclidae, l. 9. p. 965.

It is true, that we find in Pausanias, l. 1. c. 39. that Megara was built before the Heraclidae, and that they only repaired it. But the testimony of Pausanias ought not to overbalance that of Strabo, whose exactness is acknowledged by the whole world. This is also the sentiment of Velleius Paterculus, l. 1. n. 2. p. 4.

of

of Troy, they uſed oil in the preparation of their ſtuffs [n]. But what was the end of this practice? In what could it conſiſt? Was it to gloſs the ſtuffs, to give them more fineneſs, or to make them impenetrable to rain or bad weather? This is very difficult to determine in a clear and preciſe manner: the poet has not entered into any detail or any explication of theſe different objects. We learn by the modern travellers, that, in China and the Eaſt Indies, it is ſtill a practice to uſe oil for the preparation of many ſtuffs. What they have ſaid of them will, I believe, give ſome light on the queſtion we are about.

When the Chineſe go a journey, they have a cuſtom of taking with them a ſort of habits, of which the ſtuff is of a thick taffety done over with many layers of thick oil. This oil has the ſame effect on theſe ſtuffs that wax has on our cloths. They render them impenetrable to the rain [o]. The Chineſe have another way of uſing oil. They uſe it to give to their ſatins a very lively and very ſhining luſtre [o]. This laſt proceſs comes near enough to that which they follow in the Eaſt Indies for the making of theſe beautiful cotton ſtuffs which come to us from thoſe countries. The laſt preparation which they give to the thread of which they are made, is to rub them with oil [p].

Perhaps alſo the Greeks uſed oil, and the heat of the fire, to draw the worſted, and ſpin their wool more finely and more eaſily. The ſtuffs made of theſe threads dipt in oil, were afterwards ſcoured by the means of ſalts and other preparations which they uſed in fulling it. We may chuſe, among theſe different practices, thoſe which we ſhall think moſt agreeable to the text of Homer; for there is room to conjecture, that he meant ſome preparation nearly like thoſe which I have ſhewn. What is more certain, is, that theſe paſſages of Homer are almoſt unintelligible.

[n] Iliad. l. 18. v. 595. & 596.; Odyſſ. l. 7. v. 107.
[o] Memoire ſur la Chine du P. le Comte, t. 1. p. 246.
[o] Ibid. p. 102.
[p] Lettr. edif. t. 15. p. 400. and 401.

CHAP.

CHAP. III.

Of Architecture.

THE Greeks were not the inventors of architecture, if, by that word, we underſtand ſimply the art of joining together materials, and compoſing of them edifices for the convenience and different uſes of life. All policed people have had in this part of the arts, lights pretty near equal. Neceſſity ſuggeſted to them the ſame ideas and almoſt the ſame practices, although relative to the temperature of the ſeaſons and the influence of the air proper to each climate.

But architecture does not conſiſt ſolely in the work of the hands, and in a ſimple mechanic labour. It ought on many occaſions to endeavour to produce the greateſt effects, to join elegancy with majeſty, and delicacy with ſolidity. It is taſte and intelligence which ought then to direct the operations.

Neither Aſia nor Egypt can pretend to the glory of having invented, or even of having known the true beauties of architecture. The genius of theſe nations turned towards the gigantic and the marvellous, was more taken with the enormous ſize and prodigiouſneſs of a building, than with the graces and nobleneſs of its proportions. It is eaſy to judge of this by what now remains to us of the monuments raiſed in the eaſt, and by the deſcription the ancients have given us of thoſe which exiſt no more *.

It was from the Greeks that architecture has received that regularity, that order, that entireneſs which are able to charm our eyes. It was their genius which brought forth thoſe magnificent and ſublime compoſitions which we are never weary of admiring. We owe to them, in a word, all the beauties of which the art of building is capable. In this ſenſe, we may ſay the Greeks have invented

* I ſhall inſiſt more particularly on the taſte of the eaſtern people in architecture, in the article of arts in the third part of this work.

architecture. They have borrowed nothing with regard to it from other nations. It is an art which they have entirely created. Greece has furniſhed the models and preſcribed the rules which they afterwards followed when they would execute monuments worthy to deſcend to poſterity. We find, in the three orders of Grecian architecture, all that art can produce either for majeſty, elegance, beauty, delicacy, or ſolidity *.

Architecture, the ſame as the other arts, had but a very poor beginning among the Greeks. Their houſes in early times were only ſimple cabins, conſtructed in a rude and groſs manner built of earth and clay [q]. They very much reſembled the dens and caverns which theſe people ſo long had dwelt in [r]. They found afterwards the art of making and burning bricks, and with them to build houſes. The Greeks give the honour of that invention to two inhabitants of Attica named Eurialus and Hyperbius [s]. They were brothers: this is all we know of their hiſtory. We are ignorant in what time they lived.

The different colonies which came from Aſia and Egypt ſucceſſively to ſettle in Greece, contributed to the progreſs of architecture. The chiefs of theſe new colonies gathered the people of many diſtricts to build cities and towns, and accuſtomed their new ſubjects to lead a ſedentary life. The origin of theſe eſtabliſhments aſcends to very early times. We have ſeen in the firſt part of this work, that the cities of Argos and Eleuſis owed their foundations to the firſt ſovereigns of Greece [t]. They had even, as I have already ſaid, begun to build temples [u].

The firſt monuments which the Greeks raiſed, ſhew us the groſſneſs and the little knowledge they had in the art of building anciently. The temple of Delphos, ſo renowned ſince for its magnificence, and which, even in the times

* See a parallel of the ancient architecture with the modern; by M. de Chambray, p. 2.

[q] Plin. l. 7. ſect. 57. p. 413.

[r] Id. ibid.; Æſchyl. *in* Prometh. vincto, v. 449. *&c.*

[s] Plin. l. 7. ſect. 57. p. 413. [t] Book 1. chap. 1. art. 5.

[u] Ibid. book 2. chap. 3.

We

we now ſpeak of, was famous for the riches it contained [x], the temple of Delphos was originally only a ſimple thatched building covered with branches of laurel [y].

In the time of Vitruvius they ſaw ſtill at Athens, the remains of a building in which the Areopagi aſſembled in the beginning of their inſtitution. This edifice equally groſs and unformed, conſiſted of a ſort of cabin covered with ſods [z]. Such was anciently the manner in which the Greeks built.

Architecture could ſcarce have made any progreſs among thoſe people before the arrival of Cadmus. The Greeks had forgot the art of working of metals, of which the Titan princes had ſhewn them the firſt elements [a]. It was Cadmus, who, at the head of his colony, brought back into Greece ſo neceſſary a knowledge. He did more: he taught theſe people the art of procuring ſtones from the boſom of the earth, the manner of cutting them [b], and uſing them for the conſtruction of buildings.

We meet with almoſt unſurmountable contradictions when we will critically inquire into and diſcuſs the knowledge which the Greeks had of architecture in the ages which we are going over at preſent. We may judge of this by the expoſure of the facts which the writers of antiquity have tranſmitted to us on this ſubject.

If we refer to the teſtimony and the taſte of Pauſanias, we muſt be obliged to place in the infancy of the arts among the Greeks, the moſt wonderful monuments which theſe people had raiſed. That author ſpeaks of an edifice that Mynias King of Orchomena built to ſhut up his treaſures [c],

[x] Iliad l. 9. v. 404. & 405.; Plin. l. 3. ſect. 20. p. 173.
[y] Pauſ. l. 10. c. 5. [z] Vitruv. l. 2. c. 1. [a] See *infra*, chap. 4.
[b] Plin. l. 7. ſect. 57. p. 413.; Clem. Alex. ſtrom. l. 1. p. 363.
[c] L. 9. c. 36.
Mynias might reign about 1377 years before Chriſt. Pauſanias, in effect, places the reign of this prince four generations before Hercules, l. 9. c. 36. & 37. As this hiſtorian reckons twenty-five years for a generation, Mynias ſhould have preceded the birth of Hercules about 100 years, which we may fix about ſeventy years before the taking of Troy.

and of the walls of Tyrinthus built by Prætus [d], as works worthy the admiration of all ages. He does not fear to put them in competition with the pyramids of Egypt; but I think this ſentiment appears to me to labour under many difficulties.

The edifice conſtructed by Mynias was a ſort of rotunda, a little flatted. All the building reſted on a ſtone which was the centre of the arch. It ſerved for a key to the whole work, on which reſted all the parts. The whole monument was built of marble [e]. The walls of Tyrinthus were built of rough ſtones, but ſo large, that, according to Pauſanias, two mules could with difficulty draw the leaſt of them. Little ſtones put in between theſe great ones, filled up the intervals [f]. See what were the monuments which this author, as I have already ſaid, compares to the pyramids of Egypt.

To judge of theſe works, even from the deſcription of Pauſanias, we ſee nothing in them to be ſo much cried up. Beſides, he is the only one who has mentioned them. Homer, Herodotus, Apollodorus, Diodorus, and Strabo, who had had ſo many occaſions to ſpeak of the monuments of Greece, ſay nothing of the building of Mynias. With reſpect to the walls of Tyrinthus, they tell us, that they had been built by the workmen that Prætus brought from Lycia [g]. Further, they only repreſent that place as a ſmall citadel raiſed by Prætus in an advantageous poſt to ſerve him for a retreat [h]. Yet we ſhall not ſuſpect, that theſe authors have deſpiſed the monuments of Greece, and ſtill leſs that they have neglected to ſpeak of them. Laſtly, let us obſerve, that, according to Pauſanias, the edifice raiſed by Mynias was arched, a fact no way credible, eſpecially as it was conſtructed of marble: yet there is great appearance, that, even at the time of Homer, the Greeks did not know to

[d] Pauſ. l. 9. c. 36.

Praetus was brother of Acriſius, whoſe reign falls in the year 1379 before Chriſt.

[e] Pauſ. l. 9. c. 38. [f] Id. l. 2. c. 25.

[g] Apollodor. l. 2. p. 68.; Strabo, l. 8. p. 572.

[h] Iliad. l. 2. v. 559.; Apollod. l. 2. p. 68.; Strabo, l. 8. p. 572.

work

work marble. We do not find in his poems any word to characteriſe and diſtinguiſh it from other ſtones. If marble had been then known, could Homer have forgot it in the deſcription of the palace of Alcinous, and above all, in the palace of Menelaus, where he ſays there ſhone gold, ſilver, tin, ivory, and the moſt rare productions [i].

Laſtly, it is very difficult to reconcile the date of theſe monuments with the epoch which the Greeks aſſign for the invention of almoſt all the inſtruments neceſſary for the conſtruction of edifices. If we believe the greateſt part of the authors of antiquity, they owe to Dædalus the plane, the ſaw, the wimble, the ſquare, and the manner of taking and finding of levels by means of a plummet. It is true, that Dædalus divided with his nephew Talus, Calus, Attalus, or Perdix, (for authors differ about his name), one part of the glory of theſe inventions [k]. The mother of this young man had intruſted Dædalus to inſtruct him in the ſecrets of his art. He had moreover more genius and induſtry than his maſter. At the age of twelve years, having met with the jaw of a ſerpent, and having uſed it with ſucceſs to cut a little piece of wood, that adventure gave him the idea of making an inſtrument which imitated the ſharpneſs of the teeth of that animal. He took for this buſineſs a ſheet of iron, and cut it after the model of theſe little teeth, ſhort and thick ſet, which he had remarked in the ſerpent. It was thus that he found the ſaw [l]. They alſo attribute to him the invention of the compaſs, of the throw, and the potter's wheel [m]. Hiſtory adds, that Dædalus was not exempt from the low jealouſy which has at all times been the vice of artiſts, even of thoſe who profeſſed the moſt noble and moſt elevated arts. Apprehending that he ſhould be outdone by his diſciple, he deſtroyed him.

[i] Odyſſ. l. 4. v. 72. *&c.*
As the interpretation of the word Πλεκτρον uſed in this deſcription is liable to be diſputed, I have not thought proper to give it a determinate ſignification.

[k] Diod. l. 4. p. 319. & 320.; Hygin. fab. 274.; Ovid. metam. l. 8. v. 241. *&c.* Plin. l. 7. ſect. 57. p. 414.

[l] Diod. l. 4. p. 319. & 320.; Hygin. fab. 274.; Ovid. metam. l. 8. v. 241. & ſeq.

[m] Id. ibid.

Although

Although it be thus in this little hiſtory, Dædalus, by the confeſſion of all chronologiſts, is poſterior to the edifices which I have juſt mentioned. Yet how could they imagine he ſhould build without the help of inſtruments, which they ſay had been invented either by that artiſt or by his nephew?

Further, there is great reaſon to doubt, whether theſe practices were known, even in the ages in which hiſtorians have placed theſe diſcoveries. To judge of the reality of facts, and what to think of the tools uſed in the heroic times among the Greeks, it is Homer we ought to conſult. We ſhall ſee that he does not ſeem to have any idea of the greateſt part of the inventions attributed to Dædalus or his nephew. Without reckoning many places in his poems, where he had occaſion to ſpeak of the ſaw, the compaſs, and the ſquare, the veſſel which he cauſed to be built for Ulyſſes in the iſle of Calypſo, afforded him a fine field to ſpeak of all the tools of which he could have any knowledge. Theſe nevertheleſs, which he gives to his hero, only conſiſt of a hatchet that cut at both ends, a plane, wimbles, a level, or a rule to make the wood ſtraight [n]. There is no mention of the ſquare, the compaſs, or even the ſaw. This laſt inſtrument would yet have been the moſt neceſſary for Ulyſſes for the conſtruction of his ſhip. Shall we preſume, that Homer neglected to give one to the King of Ithaca *? We cannot ſay, that this prince may be thought to have wanted tools neceſſary and proper for the work which he undertook. The poet has not placed him in a deſert and abandoned iſland. Ulyſſes was then with a goddeſs in a capacity of ſupplying him with all the helps of which he ſtood in any need. There is great room to believe, that Homer gives to his hero all the tools that were in uſe at this time. Since there is no mention made of the ſquare, the compaſs, or the ſaw, we ought to preſume, that theſe inſtruments were not yet invented. The Greeks, in the heroic times,

[n] Odyſſ. l. 5. v. 234. & 245. *&c.*

* The word πρίων, which in Greek ſignifies a ſaw, is not found in Homer, nor any thing equivalent to it.

were

were almoſt as deſtitute of mechanical knowledge as the people of the new world. The Peruvians, whom we may look upon in many reſpects as a policed nation, were ignorant of the uſe of the ſaw [o]. We know even at this time, many people to whom this inſtrument is unknown [p]. They ſupply it by different means. They cleave the trunks of trees into many parts by means of wedges of ſtone. Afterwards they faſhion each piece with hatchets, and thus they come, with difficulty, to make planks [q]. The Greeks muſt then have uſed very near the ſame method [r].

The doubts which I have raiſed about the inventions attributed to Dædalus, have engaged me to propoſe ſome on the monuments of which he is looked upon as the author.

They make him travel into Egypt to be inſtructed and perfected in the arts. He profited ſo well by the leſſons which he received there, that he ſurpaſſed in a little time, ſay they, the moſt able architects of that country. They choſe him to conſtruct the veſtibule of the temple of Vulcan at Memphis [s]. He executed it in a ſuperior manner. This work acquired its author ſo much glory, that they placed in the temple his ſtatue in wood made by himſelf [t]. They did more. The genius and invention of Dædalus placed him in ſo high a reputation among the Egyptians, that theſe people decreed to him divine honours. If we ſhould believe Diodorus, there ſubſiſted, even in his time, a temple conſecrated under the name of this famous artiſt in one of the iſles bordering upon Memphis. This temple, adds he, was in great veneration through all the country [u].

It was not only in Egypt that Dædalus exerciſed his talents: he had left in many countries the teſtimonies of his ſkill in architecture. He built at Cumæ, on the coaſt of Italy, a temple to Apollo, in acknowledgment of his happy eſcape

[o] See part 1. book 2. chap 3. [p] Lettr. edif. t. 18. p. 328.
[q] Part 1. book 2. chap. 3.; Voyage de Dampier, t. 2. p. 10. t. 4. p. 231.
[r] See Virgil. georg. l. 1. v. 144. [s] Diod. l. 1. p. 109. [t] Id. ibid.
[u] Id. ibid.

from

from Crete. They boaſted of the architecture of this temple as very beautiful and very magnificent [x].

In the reſidence which Dædalus made in Sicily, he embelliſhed that iſle with many works equally uſeful and ingenious: he built among others on the height of a rock a very ſtrong citadel, and made it abſolutely impregnable [y]. Mount Erix was ſo ſteep, that the houſes which they had been obliged to conſtruct near the temple of Venus, appeared ready to fall every moment down the precipice. Dædalus augmented the ſize of the ſummit of that mountain by means of earth he brought there, and ſupported it with a wall [z]. He dug alſo near Megara in Sicily a grand pond, through which the river Alabon diſcharged itſelf into the ſea [a]. His induſtrious genius ſhone ſtill more in the conſtruction of a cavern which he dug in the territory of Selinunta: he knew how to manage and employ with ſo much art, the vapour of the ſubterraneous fires which came from thence, that the ſick people who entered into that cavern, ſoon perceived themſelves thrown into a gentle ſweat, and were cured inſenſibly, even without finding any inconveniency from the heat [b]. Diodorus adds, that Dædalus made in Sicily many other works which the injuries of time have deſtroyed.

But theſe monuments, however commendable they might be, ought not to be put in compariſon with the famous labyrinth which he made in the iſle of Crete. This work alone would have been ſufficient to immortalize the name of Dædalus. Ancient tradition ſays, that he had taken the model and the deſign from that which we ſee in Egypt; but he had only executed an hundredth part of it [c]. Dædalus had confined himſelf to imitate the entrance of the labyrinth of Egypt, where we met with ſuch a ſurpriſing number of turnings and windings, ſo difficult to remark, that it was not poſſible to get out when we were once en-

[x] Virgil. Æneid. l. 6. v. 17. & ſeq.; Sil. Ital. l. 12. v. 102.; Auſon. Idyll. 10. v. 300. & 301.
[y] Diod. l. 4. p. 321. [z] Id. ibid. [a] Ibid. [b] Ibid.
[c] Ibid. p. 320. & l. 1. p. 71.; Plin. l. 36. ſect. 19. p. 739.

gaged

gaged among them: and it muſt not be imagined, ſays Pliny, that the labyrinth of Crete had a reſemblance to thoſe which we execute in gardens, where, by means of a great number of multiplied alleys, we find the ſecret of making many ways in a very ſmall ſpace. The labyrinth of Crete was a very ſpacious edifice, diſtributed into a number of ſeparate pieces, which had on all ſides openings and gates, the number and confuſion of which hindered us from diſtinguiſhing the way out. This is what the ancients have related of the works executed by Dædalus.

It appears at firſt ſight very ſingular, that ſuch like edifices ſhould have been built in ages ſo groſs and ſo ignorant as thoſe of which we are ſpeaking at preſent: it is ſtill more ſurpriſing, that one ſingle man ſhould have been equal to ſo many labours of ſuch different kinds, and theſe executed in countries ſo diſtant from each other *. Nothing, at firſt ſight, appears to be better eſtabliſhed, than the long poſſeſſion in which Dædalus has been ſupported to the preſent time of having been a univerſal genius. The fact is atteſted by a croud of authors as well Greek as Roman. Their teſtimony nevertheleſs does not perſuade me, and I think, that all that the writers of antiquity have handed down to us on this ſubject, may be founded on no reality.

How could we perſuade ourſelves in effect, that the Egyptians, who avoided all commerce with other nations [d], ſhould have choſe a ſtranger to decorate the temple of their principal divinity? This ſingle conſideration would ſuffice to render the fact very dubious; but it entirely deſtroys it, when we ſee that Herodotus, who ſpeaks of the ſame monument [e], does not ſpeak a word of Dædalus, nor of his ſtay in Egypt. I paſs over in ſilence the other works attributed to this artiſt, of which I could equally make a criticiſm: I confine it to the labyrinth of Crete, an edifice ſo boaſted of by the ancients, and which appears alone to have cauſed the greateſt reputation of Dædalus.

* In Greece, in Egypt, in Crete, in Italy, *&c.*

[d] See Herod. l. 2. n. 91.; ſee alſo part. 1. book 6.

[e] L. 2. n. 101.

Let us examine the age of the authors who have made mention of this monument, and we ſhall ſee that they all lived more than 1200 years after the time to which they have referred its conſtruction. Beſides, they only ſpeak by tradition: they agree, that though the labyrinth of Egypt exiſted ſtill in their times, that of Crete was deſtroyed [f]. Neither are they agreed as to the form and ſpecies of this work. Diodorus and Pliny ſay, that the labyrinth of Crete was an immenſe edifice, and of a wonderful ſtructure [g]. But Philocorus, a very ancient author, did not think the ſame. It was, in his opinion, a priſon where the criminals were ſhut up very ſafely [h]. Cedrenus and Euſtathius advance, that this ſo boaſted monument was only a cave where they found many avenues, turnings, and windings, and that art had helped nature a little [i]. This ſentiment is confirmed by M. de Tournefort, who, in the year 1700, viſited theſe places with great exactneſs [k]. The teſtimony of this able traveller, joined to the diverſity of opinions which reign among the authors who have ſpoken of the labyrinth of Dædalus, ſhews the little regard we ought to pay to their recitals. Let us finiſh by giving the proof.

Why has not Homer, who was, without compariſon, much nearer to the age of Dædalus than all theſe writers, ſaid any thing of the labyrinth of Crete? If ſuch a work had exiſted in his time, is it to be believed, that he would have paſſed it in ſilence? He who ſo often makes mention of the iſle of Crete, he who very ſeldom fails to give to the cities and the countries of which he ſpeaks ſome epithets, which are always taken from their arts or their natural hiſtory? But further, Homer ſpeaks of Dædalus [l], and of the taking away of Ariadne by Theſeus [m]; but he does not ſpeak one word of the labyrinth. Yet an occaſion of ſpeak-

[f] Diod. l. 1. p. 71.; Plin. l. 36. ſect. 19. p. 740.
[g] Diod. l. 1. p. 71.; Plin. l. 36. ſect. 19. p. 740.
[h] *Apud* Plut. *in* Thef. p. 6. [i] Cedren. p. 122.
[k] Voyag. du Levant, t. 1. p. 65. &c.
[l] Iliad. l. 18. v. 590. &c. [m] Odyſſ. l. 11. v. 320. &c.

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ing of it preſents itſelf too naturally for the poet to let it eſcape him, if the tradition about that monument had had place in his time.

Herodotus, who, after Homer, is the moſt ancient writer which now remains to us of antiquity, has likewiſe kept a profound ſilence about the monument of Crete. Yet he ſpeaks of Minos: he relates, that that prince died in Sicily about the time when he purſued Dædalus [n]. He might have made ſome digreſſion on this occaſion, on the adventures and works of that artiſt; and we cannot reproach Herodotus of loſing occaſions to entertain his readers with curious and intereſting anecdotes. For what reaſons then, deſcribing the labyrinth of Egypt, ſhould he ſay nothing of that of Crete? It was nevertheleſs the place to call it to mind, by ſo much the more, as, on this ſubject, he cites the celebrated works on which Greece plumes itſelf [o]: Herodotus then would not have forgot a monument, which, though inferior to that of Egypt, would not have failed to have done honour to the Greeks.

Pauſanias, who has, moreover, entered into a grand detail of the works attributed to Dædalus, does not ſay, that the labyrinth of Crete had been conſtructed by that famous artiſt. Laſtly, if it is true, as I hope to ſhew, that the labyrinth of Egypt, from which all theſe authors avow that Dædalus had taken the model of his, was not conſtructed till above 600 years after the time we now ſpeak of [p], they will grant how little reality there was in the monument of Crete. This is alſo the ſentiment of Strabo. He gives us to underſtand very clearly, that all that the Greeks have uttered of the labyrinth and of the minotaur, was only a fable [q]. I think further, that it is the ſame with

[n] L. 7. n. 170.
[o] L. 2. n. 148.
[p] See part 3. book 2.
[q] L. 10. p. 730. & 731.

We find, it is true, ancient medals and ancient ſtones, on which this labyrinth is repreſented with its turnings and windings. We ſee the minotaur in the middle of that edifice. See Goltzius, Aug. tab. 49. 11.; Montfaucon, antiq. expliquée, t. 1. p. 76.

Theſe monuments would then equally prove the exiſtence of the minotaur and the labyrinth. I doubt whether any one would maintain at this

with all the inventions attributed to Dædalus. They are pure imaginations, founded on ſome idioms of the Greek language [r].

I ſhall not enter into a particular detail of the manner in which the houſes of private perſons were then built: Homer only ſupplies us with ſlight hints on this object. We are very little aſſured of the ſignification of the greateſt part of the terms which he uſes to deſign the different parts of an edifice. We ſee that anciently the roofs were a terraſs [s]. This was a cuſtom almoſt general in all the eaſt. But the practice of the Greeks, of making the doors of their houſes open outwards into the ſtreet [t], muſt appear very ſingular: they were obliged each time they wanted to go out, firſt to make a noiſe againſt the door, to give notice to paſſengers to keep at a diſtance [u].

It is very difficult to comprehend, and ſtill more to explain, the manner in which, according to Homer, the doors could be opened and ſhut. We ſee plainly, that the locks and the keys which the Greeks uſed, did not reſemble ours; but it is not eaſy to comprehend the contrivance and the mechaniſm of theſe inſtruments. We may conjecture, that there was on the inſide of the door a ſort of bar, or bolt, which they could let down or raiſe up by means of a latchet [x]. The keys which they uſed for this purpoſe were made in the manner of a pick-lock; it was a piece of copper pretty long, turned like a ſickle, and had a handle of wood or ivory [y]. There was in the door a hole

time that there really exiſted a monſter, ſuch as theſe medals and ingraved ſtones repreſent to us. We ought to put the labyrinth of Daedalus and the minotaur among the number of thoſe popular traditions which certain cities adopted, and with which they loved to decorate their monuments.

[r] Δαίδαλος ſignifies in general a workman very *ingenious*, very *able*, and even a work made with *art*. This is an obſervation which has not eſcaped Pauſanias. He adds, that they gave the name Δαίδαλος to ancient ſtatues of wood, even before Daedalus, l. 9. c. 3.

[s] Odyſſ. l. 10. v. 552. &c.

[t] Odyſſ. l. 21. v. 391. See Madam Dacier's notes.

[u] Phot. p. 196.; Terent. Andria, act 4. ſcen. 1. v 687.
The Andrian was tranſlated from Menander, and the ſcene was at Athens.

[x] Odyſſ. l. 1. v. 441. 442. l. 4. v. 802.

[y] Odyſſ. l. 21. v. 6. & 7. We may ſee the figure of thoſe keys in the remarks of M. Huet, in Manil. l. 1. p. 8.

which

which was juſt under the bolt: they put in the key by the hole, and ſeized on the latchet which held the bolt; and ſo liſted it up, and opened the door. The locks which the negroes of Guinea uſe at this time, may give us ſome idea of all this mechaniſm [a], almoſt unintelligible in the writings of the ancients.

It appears, that, in the heroic times, they were very curious to adorn and enrich the inſide of their houſes. The apartments of the palace of Menelaus were very ſumptuous and very magnificent [a]: but there is great reaſon to think they did not then know the art of decorating the buildings on the outſide. Of all the edifices deſcribed by Homer, not one of them preſents us with what may be called the ornaments of architecture. This poet only ſpeaks of porticoes [b], and yet we have not a ſufficiently clear idea of theſe ſorts of works. We are ignorant of what could have been their ſtructure and diſpoſition. The uſe which the Greeks then made of theſe porticoes is abſolutely contrary to what we now underſtand by that ſort of building. It was in effect under theſe porticoes that they lodged their friends and other ſtrangers of conſideration [c]. This reflection ſuffices to deſtroy the ideas which that name naturally preſents in our language; and we muſt agree, that we cannot explain at this time what Homer underſtood by the word which we commonly tranſlate by that of portico *.

From all that I have ſaid, it follows, that we can determine nothing of the ſtate and the progreſs of architecture in Greece for the ages we are at preſent about. We ſhould not be in this difficulty, if we would adopt the ſen-

[a] Nouv. relat. de la France Equinox, p. 143. & 144.
[a] Odyſſ. l. 4. v. 72 &c. [b] Ibid. l. 4. v. 297. & 302.
[c] Iliad. l. 24. v. 644.; Odyſſ. l. 4. v. 297.
* It is only by a ſort of tradition that we are uſed to tranſlate by the term *portico*, the word αἰθουσα, uſed by Homer in the deſcription of theſe [illegible]. The grounds of that explication are entirely unknown to us. It is plain, that αἰθουσα comes from αἰθω, *uro*, *lucco*; but it is not equally proved, that they were formerly in conſtant uſe, as the ſcholiaſts ſay, that they lighted fires under the porticoes of great houſes. It is, notwithſtanding, on this pretended uſe that they ground their explication.

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timent of Vitruvius on the origin and the epoch of the different orders of architecture invented by the Greeks. "Anciently," says he, "they were ignorant of the art "of proportioning the various parts of a building: they "used columns, but they cut them at hazard, without "rules, without principles, and without having any atten-"tion to the proportions which they ought to give them: "they placed them likewise without any regard to the o-"ther parts of the edifice. Dorus, son of Helen and "grandson of Deucalion *, having caused a temple to "be built at Argos in honour of Juno; that edifice was "found by chance to be constructed according to the taste "and the proportions of the order which afterwards they "called Doric. The form of this building having appear-"ed agreeable, they conformed to it for the construction "of edifices which they afterwards had to build †.

"About the same time," adds Vitruvius, "the Athe-"nians sent into Asia a colony under the conduct of Ion, "nephew of Dorus †: this undertaking had very good "success. Ion seized on Caria, and there founded many "cities: these new inhabitants thought to build temples. "They proposed for a model that of Juno at Argos; but "ignorant of the proportion which they ought to give to "the columns, and in general to the whole edifice, they "sought for rules capable of regulating their operation. "These people wanted, in making their columns sufficient-"ly strong to support the whole edifice, to render them at "the same time agreeable to the sight. For this purpose, "they thought to have given it the same proportion "that they found between the foot of a man and the "rest of his body. According to their ideas, the foot "made a sixth part of the human height: in conse-"quence, they gave at first to a Doric column, taking "in its chapiter, six of its diameters; that is to say,

* He was king of all Peloponnesus, and lived about 1522 years before Christ.

† Vitruv. l. 4. c. 1.

‡ Ion was son of Xuthus, brother of Dorus.

"they

" they made it ſix times as high as it was thick[e]: after-
" wards they added to it a ſeventh diameter *.

" This new order of architecture was not long in giving
" birth to a ſecond: they would immediately go beyond
" their firſt invention. The Ionians (it is Vitruvius who
" ſtill ſpeaks) tried to throw ſtill more delicacy and ele-
" gance into their edifices. They employed the ſame
" method which they had before put in practice for the
" compoſition of the Doric order: but inſtead of taking
" for a model the body of a man, the Ionians were regu-
" lated by that of a woman. With a view to make the
" columns of this new order more agreeable and more
" pleaſing, they gave them eight times as much height as
" they had diameter[f]. They alſo made channelings all
" along the trunk to imitate the folds of the robes of wo-
" men: the volutes of the chapiter repreſented that part
" of the hair which hung in curls on each ſide of the face.
" The Ionians added, laſtly, to theſe columns a baſe
" which was not in uſe in the Doric order[g]." According to Vitruvius, theſe baſes were made in the manner of twiſted cords, as a kind of caſe for the columns. This order of architecture was called Ionic from the name of the people who had invented it.

This is what Vitruvius relates of the origin and epoch of the Doric and Ionic orders: he makes it aſcend as we have ſeen, to very early times.

I ſhall not ſtop to ſhew the little reſemblance to truth there is in this whole narration; but whatever had been the origin of theſe two orders, I think we cannot refer them to the ages in which Vitruvius has placed them. We

[e] Vitruv. l. 4. c. 1.

* Vitruv. ibid.; Plin. l. 36. ſect. 56. p. 755.

At that time we may ſay, that the Doric column had the proportion of the body of a man. For the foot of a man is at leaſt the ſeventh part of his height.

[f] Vitruv. l. 4. c. 1.

Afterwards they gave to theſe columns the height of eight of their diameters. At this time, they have nine, if we include the chapiter and the baſe.

[g] See M. de Chambray, p. 15. 19. & 33.; ſee alſo the notes of Perrault on Vitruvius, p. 176. note 6.

do

do not ſee in effect, that Homer, greatly poſterior to theſe times, had the leaſt idea of what we call the orders of architecture. I have already made this remark: I ſhall add, that if it had been known, it would very probably have been put in practice. Occaſions were preſented to him more than once in his poems. Homer ſpeaks of temples conſecrated to Minerva and to Neptune, and yet he gives no deſcription of them [h]. With reſpect to palaces, what he has ſaid does not give an idea of any order or of any deſign in architecture [i]. We ſhould not even dare to affirm, that the columns mentioned in theſe edifices were of ſtone; they were only, according to all appearances, ſimple poſts *. Laſtly, the only eulogy which Homer makes of the palace of Ulyſſes, conſiſts in ſaying that it was very high, that the court was defended by a wall and by a hedge. The poet alſo praiſes the ſtrength and the ſolidity of the gates of this palace, giving us to underſtand, that it was very difficult to force them. He ſeems to inſiſt much on this article [k], which was a very eſſential point in the heroic times, on account of the robberies which then were very frequent in Greece. Theſe reflections are ſufficient, I think, to make us reject the recital of Vitruvius, too modern an author with relation to the ages of which we now ſpeak, for us to believe his ſimple teſtimony. It is better to acknowledge our ignorance of the ſtate in which architecture then was in Greece, than to refer to ſuch ſuſpected traditions.

[h] See Iliad. l. 6. v. 297; Odyſſ. l. 6. v. 266.

[i] See Iliad. l. 6. v. 242. l. 20. v. 11.; Odyſſ. l. 4. v. 72. *&c.* l. 7. v. 85. *&c.*

* I remark at firſt, that Homer never calls theſe columns στήλας, a word which properly ſignifies a column of ſtones; but always κίονας, which can only be underſtood of poſts of wood. I ſhall obſerve, in the ſecond place, that they drove pegs into theſe columns to hang different utenſils upon, and that they there contrived cavities proper to keep different arms in. Odyſſ. l. 22. v. 176. *&c.* l. 8. v. 66. *&c.* l. 1. v. 127. *&c.* l. 19. v. 38.

But, moreover, Homer willing to give us an idea of the largeneſs of an olive-tree which ſupported the bed of Ulyſſes, compares it to a column; and it is there to be remarked, that he uſes the word κίων, to deſign that column. Odyſſ. l. 23. v. 191.

[k] Odyſſ. l. 17. v. 264. *&c.*

CHAP.

CHAP. IV.

Of Metallurgy.

HIſtorians are not agreed about the time in which the art of working of metals became known in Greece. Some make this diſcovery aſcend to the moſt early ages, others place it in ages much more recent: theſe contradictions nevertheleſs are only in appearance. It is eaſy, by diſtinguiſhing the ſpirit and the motives of theſe traditions, to reconcile the recitals which at firſt appear the moſt oppoſite.

I think, that the knowledge of metals, and the art of working them, had originally been brought into Greece by the Titan princes: many facts ſeem to favour this conjecture. The Greeks, according to ſome authors, attribute to Sol the ſon of the Ocean, the diſcovery of gold [k]. I have already ſaid, that anciently they called ſons of the Ocean, thoſe who from time immemorial had come by ſea into a country. It was by this way, that the Titans had come into Greece: they came out of Egypt [l]. The Egyptians attribute to their ancient ſovereigns the diſcovery of metallurgy [m]: they had deified them in acknowledgment of that invention, and of many others which theſe monarchs had imparted to their people [n]. A prince whoſe name the Greeks have rendered by that of *Elios*, and the Romans, by that of *Sol*, had been, by the confeſſion of almoſt all hiſtorians, the firſt who had reigned in Egypt [o]. This monarch was alſo regarded as the moſt ancient divinity in the country [p]. Gold was the firſt metal that men have known [q]. Nothing hinders us to believe, that the prince of whom we now ſpeak, had ſhewn to the Egyptians the manner of working this metal. I even think to find a proof of it in the relation which at all times has been eſtabliſhed between the Sun, the name of an Egyptian mo-

[k] Gellius *apud* Plin. l. 7. ſect. 57. p. 414.
[l] See part 1. book 1. art. 5. [m] Ibid. book 2. chap. 4.
[n] Diod. l. 1. p. 17. [o] Ibid. [p] Ibid.
[q] See part 1. book 2. chap. 4.

narch, and gold. The art of working of metal was brought into Greece by the Titans, and under the auſpices of the Sun: theſe princes came by ſea. This was enough to make the Greeks ſay afterwards, that the diſcovery of gold had been communicated to them by Sol ſon of the Ocean.

We may conſider in the ſame point of view, what they related of the diſcovery of ſilver: they ſaid they were indebted for it to Erichthonius [r]. This prince, according to the tradition of the Greeks, was the ſon of Vulcan [s]. No one is ignorant, that the Egyptians revered Vulcan as one of their moſt ancient divinities; who was looked upon to have invented fire [t], and who among the Greeks was thought to preſide at all the operations of metallurgy [u].

With reſpect to copper, the firſt who worked that metal in Greece, were, according to ſome authors, workmen brought by Saturn and Jupiter [x]. We ſee, laſtly, that, from a very ancient tradition, Prometheus paſſed for having learned the Greeks the art of working in metals [y]. We know, that this perſon, ſo famous in antiquity, was cotemporary with the Titans. All theſe facts then ſeem to declare, that the firſt knowledge of metallurgy had been brought into Greece by the Titan princes; and it is after this ancient tradition, that the authors have ſpoken, who made the art of working of metals aſcend to the firſt ages of Greece.

I have already remarked on many occaſions, that the reign of the Titans had been very ſhort, whoſe fall had drawn along with it, that of the knowledge, which theſe ſtrangers had imparted to Greece [z]. There muſt have new colonies come from Egypt and from Aſia to re-eſtabliſh, or, to ſpeak better, to re-create the arts in that part of Europe. Cadmus ought to be looked upon as the firſt who renewed in Greece the art of working of metals. This prince diſcovered in Thrace, at the foot of Mount Pangæus, mines of

[r] Plin. l. 7. ſect. 57. p. 414. [s] Apollodor. l. 3. p. 196. [t] Diod. l. 1. p. 17.
[u] See Odyſſ. l. 6. v. 233. & 231.
[x] Strabo, l. 14. p. 966.; Stephan. *in voce* Αιθαλια, p. 38.
[y] Æſchil. *in* Prometh. vincto, v. 501. *&c.*
[z] See part 1. book 1. art 5.

gold,

gold. He had learned the Greeks to dig for them, to draw from thence the metal, and to prepare it [a]. He alſo made copper known to them, and the manner of working it [b]. This ſentiment is even ſupported by the name which in all times they have given to one of the principal alloys which enters into the preparation of copper. *Calamine* or *Cadmia*, which is of great uſe to refine that metal, and to augment its weight, had received from Cadmus the name which it bore formerly, and which it retains even at this day [c].

We are ignorant by whom, and at what time the art of working ſilver had been brought into Greece. I ſhould incline alſo to give Cadmus the honour of the re-eſtabliſhment of that part of metallurgy. I ground it upon this, that Herodotus [d] tells us, that Mount Pangæus, where Cadmus found mines of gold, contained alſo mines of ſilver.

It is therefore with ſome ſort of reaſon, that this prince has paſſed, in the writings of moſt authors, for the firſt who had ſhewn to the Greeks the art of working metals; and it is not difficult, as we ſee, to reconcile the different traditions which have been preſerved in Greece about the origin of that diſcovery. There is nothing contradictory in it. In effect, though the knowledge of the arts had periſhed with the Titans, there were nevertheleſs preſerved ſome traces of them. Some writers had collected them, and tranſmitted to us the hiſtory of them. Others have neglected theſe ancient traditions, or perhaps were ignorant of them. They have therefore attributed to the chiefs of the laſt colonies who came into Greece, the diſcovery of many arts of which they were only the reſtorers.

We do not meet with the ſame diviſion nor the ſame diverſity of opinions about the time in which the Greeks knew and learned to work iron. The ancients agree ſufficiently to place this diſcovery under the reign of Minos the Firſt [e], 1431 years before Chriſt. This knowledge had paſſed from Phry-

[a] Plin. l. 7. ſect. 57. p. 414.; Clem. Alex. ſtrom. l. 1. p. 363. See alſo Herod. l. 7. n. 6. & 12.

[b] Hygin. fab. 274.; Strabo, l. 14. p. 998.

[c] In Latin *Cadmea*. See Plin. l. 34. ſect. 2. & 22. [d] L. 7. n. 6. & 12.

[e] Marm. Oxon. ep. 11.

gia into Europe, with the Dactyli, when they quitted the neighbourhood of Mount Ida to come and ſettle in Crete [f]. Nevertheleſs it does not appear that the art of working iron had been much extended in Greece. It was originally with the Greeks as with all people of antiquity. They uſed copper for moſt of the things for which at preſent we uſe iron. At the time of the war of Troy not only arms [g], but even all tools, and all the inſtruments of mechanic arts [h], were of copper. Iron was then ſo eſteemed, that in the games which Achilles cauſed to be celebrated in honour of Patroclus, he propoſed as a conſiderable prize a ball of that metal [i]. Homer ſpeaks always of it with great diſtinction [k].

With regard to tin, it was by commerce with the Phœnicians the Greeks had procured that metal. They made great uſe of it in the heroic ages. I ſhall have occaſion to ſpeak of it more particularly in the article of commerce and navigation.

It appears, that, at the times which we are now ſpeaking of, the art of working gold, ſilver, and copper had made a very great progreſs among the Greeks. We ſee, by the writings of Homer, that theſe people knew at that time all the inſtruments proper for the fabric of theſe metals [l]. I reſerve the detail of all theſe practices for the following chapter, where I ſhall treat of the knowledge the Greeks had in gold work in the ages of the war of Troy.

CHAP. V.

Of deſigning, graving, chaſing, gold work, and ſculpture.

WE are ignorant in what time deſign, and the arts which have relation to it, took their riſe among the

[f] Ephorus, *apud* Diod. l. 5. p. 381.; Heſiod. *apud* Plin. l. 7. ſect. 57. p. 414.
[g] See infra, book 5. chap. 3.
[h] Iliad. l. 23. v. 118. &c.; Odyſſ. l. 3. v. 433. l. 5. v. 234.
[i] Iliad. l. 23. v. 826. [k] Ibid. l. 7. v. 473. *et paſſim.* [l] Odyſſ. l. 3. v. 433.

Greeks.

Greeks. Antiquity has tranſmitted nothing to us that is ſatisfactory on the origin of all theſe different diſcoveries. They attribute to Love the firſt eſſay that Greece had ſeen of the art of deſigning, and caſting objects in earth.

A young girl violently ſmitten with her lover from whom ſhe was to be ſeparated for ſome time, endeavoured to find ways to ſoften the rigour of abſence. Taken up with this buſineſs, ſhe remarked on the wall the ſhadow of her lover, deſigned by the light of a lamp. Love makes us ingenious. It inſpired that young perſon with the idea of preſerving that dear image, by drawing about the ſhadow a line which followed and marked exactly the contour. Hiſtory adds, that our lover's father was a potter of Sycione, named Dibutade. This man having conſidered the work of his daughter, applied clay on theſe ſtrokes, by obſerving the contours ſuch as he ſaw them deſigned: He made by this means a profile of earth which he burnt in his furnace [m]. We are not aſſured of the time in which this Dibutade lived. Some authors place him in very remote ages [n].

Such had been, according to ancient tradition, the origin of deſign and in figures of relief in Greece. We are ignorant of the conſequence of this firſt eſſay. We can ſay nothing of the degrees that the greateſt part of the arts which have relation to deſign, went through ſucceſſively among the Greeks. We may conjecture, that theſe practices have not begun to make any great progreſs till after the arrival of the colonies conducted by Cecrops, Cadmus, &c. Theſe princes came out of Egypt and Phœnicia, countries, where the arts concerning deſign were known from time immemorial. Whatever it be, a number of facts reported by Homer ſhew, that, in the ages we are now upon, the Greeks were inſtructed in many arts which depended entirely upon deſign.

They knew how to work in ivory, and apply it to diffe-

[m] Plin. l. 35. ſect. 43. p. 710. [n] See Junius, *in* Catalog. p. 56.

rent

rent uſes [o]. They applied it to the adorning of chairs and other furniture [p]. Theſe works were of very great value, and much ſought after. They muſt even then have had in Greece, artiſts diſtinguiſhed for their taſte and ſkill. Homer ſpeaks of one Icmalius, as of a workman who excelled in theſe ſorts of works [q].

It is certain alſo, with reſpect to gold work, that the Greeks knew many parts of that art. We ſee frequently in the writings of Homer, the princes of Greece uſing cups, ewers, and baſons, of gold and ſilver. The ſhield of Neſtor was compoſed of frames or ſticks of gold [r]. This prince had alſo a cup of pretty elegant workmanſhip. It was adorned with ſtuds of gold, with two double handles, and other different ornaments [s]. Homer farther ſpeaks very often of workmen who knew how to mix gold with ſilver to make precious veſſels [t]. The Greeks knew alſo, in the heroic ages, the art of ſoldering theſe metals.

We might ſay, that all theſe works, of which I have ſpoken, had been brought into Greece from foreign countries. Yet I do not know that there is room to preſume it. Homer does not ſay it. We know his exactneſs in this reſpect.

As to the art of ingraving metals, I do not think that the Greeks had then done any of theſe works. I ground this, firſt, becauſe there is never any mention made in Homer of rings or of ſeals. Secondly, on the ways which the Greeks, according to the relation of this poet, uſed to ſeal the trunks and the coffers in which they put their moſt valuable effects. The uſe of locks and padlocks was entirely unknown to them. That one might not open their packets, without their knowing of it, they wrapped them round with cords very artfully tied. Theſe ſort of knots were uſed inſtead of ſeals and ſignets. They were ſo ingeniouſly invented, and ſo complicated, that he alone

[o] Odyſſ. l. 4. v. 73. *&c.*
[p] Ibid. l. 19. v. 56. & l. 23. v. 200.
[q] Ibid. l. 19. v. 56. & 57.
[r] Iliad. l. 8. v. 192. & 193.
[s] Ibid. l. 11. v. 631. *&c.*
[t] Odyſſ. l. 6. v. 232. *&c.* l. 23. v. 159. & 160.

who

who had made them could unlooſe and open them. Homer, to extol the ſkill of Ulyſſes in making theſe ſort of ſecuritiés, ſays, that it was from Circe that he had learned the ſecret [u]. If the Greeks had then known the art of ingraving ſeals, they would not have had recourſe to theſe knots, the common uſe of which muſt have been very incommodious and very troubleſome.

Yet if we will believe certain authors, the Greeks, in the heroic times, had rings and ſeals in uſe. Plutarch ſpeaks of the ring of Ulyſſes, on which that hero had ingraved a dolphin [x]. Helen, by the report of Hæpheſtion, cited by Photius, had for a ſeal a very uncommon ſtone, the ingraving of which repreſented a monſtrous fiſh [y]. Polygnotus, laſtly, a Greek painter, who flouriſhed about 400 years before Chriſt, in his picture of the deſcent of Ulyſſes into hell, had painted young Phocus, having on one of the fingers of his left hand an ingraved ſtone ſet in a ring of gold [z].

But theſe authors were too diſtant from the times we are ſpeaking of, for their teſtimony to be capable of balancing the authority of Homer, the ſole guide we ought to follow for the cuſtoms and manners of the heroic ages. Pliny has been very ſenſible of this. That great writer has not ſuffered himſelf to be impoſed upon. He has not heſitated to advance, that ſeals and rings were not in uſe at the time we are ſpeaking of at preſent [a].

The Greeks were at that time ignorant of the art of drawing gold into wire, and of uſing it in gilding. The cuſtom was anciently, to enrich with gold the horns of bulls or heifers which they offered in ſacrifice. Homer deſcribes the manner in which they proceeded at the time of the war of Troy; it was on occaſion of a ſacrifice offered by Neſtor to Minerva. The poet ſays, that they made a workman come to apply the gold on the horns of the victim. This man brought with him utenſils proper to perform that operation. They conſiſted of an anvil, a hammer, and pincers.

[u] Odyſſ. l. 8. v. 447. &c. [x] T. 2. p. 985.
[y] Cod. 190. p. 493. [z] Pauſ. l. 10. c. 30.
[a] L. 33. ſect. 4. p. 602. See alſo Heſych. voce Θριπποδόρωτος.

Neſtor

Neſtor gave the gold to this workman, who immediately reduced it into very thin plates. He afterwards wrapped theſe plates about the horns of the heifer [b]. We do not remark in this proceeding any thing that could make us believe that the Greeks then knew the art of gilding, as they knew it afterwards, and ſuch as we practiſe at this time. There is no mention neither of glue, nor of the white of an egg, nor oil, nor glutinous earth, nor, in a word, any ingredient proper to keep the gold on the horns of the victim. The manner in which they gilded then, conſiſted in covering with plates of gold extremely thin, the things to which they would give the colour and the brilliancy of that metal.

Homer does not furniſh us with any other lights about the working of metals in Greece for the times we are ſpeaking of at preſent. Let us go to ſculpture.

This art had been a long time unknown to the Greeks. We may judge of this by the manner in which they anciently repreſented the divinities whom they adored. Their images were then of ſimple poſts or large ſtones; often even of pikes dreſſed in a particular manner [c]. The idol of Juno, ſo revered among the Argives, was, in the early times, only a piece of plank, a piece of wood worked very rudely [d]. I could cite many other examples, which I omit for the ſake of brevity. The idols of the Laplanders, of the Samoyedes, and the other people ſituated towards the extremities of the North [e], bring back to us the image of the groſſneſs and ignorance of the ancient inhabitants of Greece.

It is probably from Egypt that theſe people had received

[b] Odyſſ. l. 3. v. 432. *&c.* This is the ſenſe of the verb περιχέω, uſed in all this deſcription.

[c] Lucan. Pharſ. l. 3. v. 412. *&c.*; Juſtin. l. 43. c. 3.; Clem. Alex. *in* protrept. p. 40. & 41.; Strom. l. 1. p. 418.; Plut. t. 2. p. 478. A.; Pauſ. l. 2. c. 9. l. 7. c. 22. l. 9. c. 24. & 27.; Tertullian. apolog. c. 16. p. 16.; *Ad* Nation. l. 1. c. 12. p. 49.

[d] Pauſ. l. 2. c. 19.; Clem. Alex. *in* protrept. p. 40.

[e] Rec. des voyages au Nord, t. 8. p. 192. & 416; Hiſt. gen. des cerem. relig. t. 6. p. 71. & 81.

ceived their firſt knowledge in ſculpture. We may refer this epoch to Cecrops. In effect, this firſt ſovereign of the Athenians had paſſed in antiquity for having introduced into the temples of Greece the uſe of images [f]. The Athenians ſhewed, in the time of Pauſanias, a ſtatue of wood repreſenting Minerva, which, they ſaid, had been given by Cecrops [g]. The works of ſculpture which the Greeks made for ſome time, favoured too much of the Egyptian manner. Without taſte and knowledge, their ſculptors contented themſelves at firſt with following the models which had been preſented to them [h]. The reader has not forgot what I have ſaid in the firſt part of this work on the taſte of Egyptian ſtatues [i]. We find again the ſame defects in thoſe of the ancient Greek ſculptors. They were for the moſt part ſquared figures, having the arms hanging down and joined to the body, the legs and feet joined one againſt the other, without geſture and without attitude [k]. The Greeks at firſt ſtill imitated the taſte of the Egyptians for gigantic figures [l].

Sculpture remained long in this ſtate among the Greeks. They reckon more than 300 years from Cecrops to the ages in which they make Dædalus live. It was then that the Greek artiſts began to recogniſe the deformities and the want of agreeableneſs in the ancient ſtatues. They thought they could make better. Dædalus, (that is to ſay, the ſculptors who appeared in the ages in which they placed that artiſt), in copying the Egyptian models, did not ſtick to them ſervilely. They tried to correct the defects, and they ſucceeded at leaſt in part. Nature was the model which they propoſed. The face and the eyes of ancient ſtatutes had no expreſſion. The artiſts of whom I ſpeak

[f] Euſeb. chron. l. 2. p. 55.; Praepar. evan. l. 10. c. 9. p. 486.; Iſidor. orig. l. 8. c. 11. p. 69.

[g] L. 1. c. 27. See alſo Euſeb. praep. evang. l. 10. c. 9 p. 486.

[h] See Diod. l. 1. p. 109. [i] Book 2. chap. 5.

[k] Diod. l. 4. p. 319.; Palaephat. de incred. c. 22.; Scaliger, in Euſeb. chron. p. 45.

[l] Strabo, l. 17. p. 1159.; Pauſ. l. 30. c. 19. p. 257.

ſtudied to give it them. They detached from the body the arms and the legs, put them in action, and gave them various attitudes [m]. Their ſtatues appeared with graces which they had not yet ſeen in theſe ſort of works. They were ſo ſtruck at it, that antiquity ſaid of the ſtatues of Dædalus, that they appeared animated, moved and walked of themſelves [n]; exaggerations which ſhew the happy change which was then made in the Greek ſculpture [o].

Although there was great difference between theſe new productions and the ancient ones, they were ſtill very far from that degree of perfection to which the Greeks afterwards carried ſculpture. I think that the works of Dædalus, ſo boaſted of in antiquity, owed the greateſt part of their reputation to the groſſneſs and ignorance of the age in which they appeared. This is the judgment which Plato has given us of them. Our ſculptors, ſays he, would make themſelves ridiculous, if they made at preſent ſtatues in the taſte of thoſe of Dædalus [p]. Pauſanias, who had ſeen many of them, confeſſes that they were ſhocking, that the proportions were too large and coloſſal [q].

After having ſhewn the origin of ſculpture among the Greeks, and its ſtate in the ages we are at preſent employed about, it remains to examine the materials that theſe people then uſed for their ſtatues. We have ſeen, that the firſt works which were made in relief were of burnt clay [r]. They learned afterwards to handle the chiſel, and began to try it on wood. This is the only ſolid matter that the Greeks knew how to work for a long time. All the hiſtorians agree, in ſaying, that the an-

[m] Diod. l. 4. p. 319.; Euſeb. chron. l. 2. p. 88.; Suid *voce* Δαιδαλος-ποιήματα, t. 1. p. 514.; Scaliger. in Euſeb. chron. p. 45.

[n] Plat. in Maenone, p. 426.; In Entyphron. paſſim; Ariſt. de anima. l. 1. c. 3. t. 1. p. 622.; De repub. l. 1. c. 4. t. 2. p. 299.

[o] Diod. l. 4. p. 319.; Palaephat. de incred. c. 22. p. 29.; Euſeb. chron. l. 2. p. 33.

[p] Hipp. Maj. p. 1245. [q] L. 2. c. 4. l. 3. c. 19.

[r] *Ibid.* p. 221.

cient

cient ſtatues [r], and even thoſe attributed to Dædalus, were of wood [s].

We find, it is true, in ſome authors, certain traditions which ſeem to declare, that, before the war of Troy, the Greeks had known the art of ſculpture in ſtone [t], and even in marble [x]. But I have already explained myſelf on theſe ſort of teſtimonies. I think we ought not to regard them when they are not ſupported by the ſuffrage of Homer. Statues of ſtone are never mentioned in his poems. With reſpect to marble, I have ſhewn, that, according to all appearances, this poet had not even known it [y].

The art of throwing of metals into fuſion to make ſtatues of them, was equally unknown to the Greeks in the heroic ages. This ſecret muſt only have been known and practiſed very lately. Pauſanias alſo regarded as ſuppoſititious, the ſtatues of copper run at one caſt, which they attributed to Ulyſſes [z]. We ſhall readily adopt his ſentiment, if we reflect on the meaſures and extraordinary precautions they muſt take to ſucceed in ſuch works. The Greeks ſurely were not then in a capacity to undertake them, and leſs ſtill to execute them. Yet if we believe the ſame author, theſe people then had ſtatues of copper. This is the manner in which he pretends the Greeks executed them. They made, ſays he, a ſtatue ſucceſſively and by pieces. They ran ſeparately and one after the other, the different parts which compoſe a figure. They afterwards collected them and joined them together with nails [a]. They repaired the whole without doubt with a chiſel. The equeſtrian ſtatue of Marcus Aurelius in the capitol is executed in this taſte [b]. However imperfect this practice be, I yet think it was unknown to the Greeks in the ages we are at preſent upon.

[r] Plin. l. 22. ſect. 2. p. 654.; Pauſ. l. 1. c. 27. l. 2. c. 17, 19. 22, 25, l. 8. c. 17.; Plut. *apud* Euſeb. præp. evan. l. 3. c. 8. p. 99.
[t] Diod. l. 1. p. 109.; Pauſ. l. 2. c. 4. l. 8. c. 35. l. 9. c. 11.
[u] Euſtath. *ad* Iliad. l. 2. v. 308. &c. [x] Pauſ. l. 2. c. 37.
[y] Supra, p. 226. [z] L. 8. c. 14. [a] L. 8. c. 14. l. 3. c. 17.
[b] Mem. de Trev. Juillet 1703. p. 1208.

We perhaps might be authoriſed from ſome paſſages of Homer to ſupport the ſentiment of Pauſanias. This poet, for example, ſays that one ſees on each ſide of the gate of Alcinous two dogs of gold and ſilver, which Vulcan had made a preſent of to that prince [c]. He places in the ſame edifice, ſtatues of gold repreſenting young boys who held in their hand torches which they lighted to light the dining-room [d]. Homer farther makes a wonderful deſcription of the two ſlaves of gold which Vulcan had forged to accompany him, and aſſiſt him in his work [e].

But we muſt remark, firſt, that it is to a god that the poet attributes theſe uncommon works. Let us obſerve afterwards, that it is in Aſia that he places them [f]. The marvellous, moreover, which he puts in this whole deſcription, does not permit us to believe, that he had had in view any thing like, or even approaching to what he there ſpeaks of. We ſhould range theſe paſſages among the number of fictions which poets uſe ſometimes to ſurpriſe and amuſe the reader. We might even go further. I think we may perceive a very ſenſible relation between theſe ſlaves of gold of Vulcan who walk, think, and aſſiſt the god in his work, and what they gave out anciently in Greece about the ſtatues of Dædalus [g]. It was, by what appears, one of theſe popular opinions to which the greateſt geniuſes ſeem to pay homage. I do not think then, that we can conclude any thing of the true taſte of ſculpture among the Greeks in the ages of which we now ſpeak. In general, I am perſuaded that they had then very few ſtatues in Greece. Homer does not put any in the palaces of the Greek princes of whom he had occaſion to ſpeak, nor in any other place. I ſhall add, that he even has not in his writings particular terms to deſign a ſtatue *,

[c] Odyſſ. l. 7. v. 92. *&c.*
[d] Odyſſ. l. 7. v. 100. *&c.* [e] Iliad. l. 18. v. 417. *&c.*
[f] See ſupra, chap. 1. p. 84. [g] See p. 226.

* Homer never makes uſe but of the term ἄγαλμα; he even uſes that expreſſion to mark in general all ſorts of ornaments. It was only afterwards, that the Greek writers reſtrained the ſignification of the word ἄγαλμα, and conſecrated it to deſign ſtatues. See Fulvii. antiq. Hom. l. 1. c. 4. p. 31.

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We ſhall not be ſurpriſed that at this time I ſay nothing of painting. I have diſcuſſed that matter extenſively enough in treating of the arts which the people of Aſia and Egypt could have the knowledge of in the ages which make the object of this ſecond part of my work. I have declared myſelf for the ſentiment of Pliny, who believes the invention of painting poſterior to the heroic times [h]. I have nothing new to add to it. The reaſons which I have alledged regard the Greeks as much and more, than the people of Aſia and the Egyptians. I am perſuaded that neither one nor the other then knew the art of painting in the ſenſe in which I have explained it [i].

CHAP. VI.

Of the origin of writing.

THere now remain very few lights about the firſt means that the Greeks had employed to render their thoughts ſenſible to the eyes, and to tranſmit them to poſterity. We only ſee, that in the firſt times they made uſe of practices almoſt like to thoſe which all the people known in antiquity had uſed originally. We find among the Greeks theſe ſorts of poems, which they ſet to muſic, to preſerve the memory of important facts and diſcoveries [k]. I ſuſpect alſo, as I have ſaid elſewhere, that they anciently made uſe of repreſentative [l] writing, which conſiſts in deſigning the objects of which they would ſpeak. With reſpect to hieroglyphics, I am ignorant whether the Greeks have known that ſort of writing, I find no trace, no veſtige in their hiſtory. Yet I would not infer that theſe people have never practiſed hieroglyphic writing. We are not ſufficiently inſtructed in

[h] See p. 170. 171. [i] Ibid. p. 163.

[k] Tacit. annal. l. 4. n. 43.; Acad. des inſcript. t. 6. p. 165. See alſo *ſupra*, book 1. chap. 3. art. 8. p. 77. & 78.

[l] See part 1, book 2. chap. 6.

the

the ancient cuſtoms of Greece, to dare to pronounce any thing on that ſubject.

Alphabetic writing had only been introduced very lately into that part of Europe. Cadmus, according to the report of the beſt hiſtorians of antiquity, was the firſt who made known to the Greeks that ſublime knowledge[m]. Some authors, indeed, would do that honour to Cecrops[n]. But this ſentiment is neither proved, nor followed. There are alſo found modern critics who have advanced, that, before Cadmus, the Pelaſgians had an alphabetic writing[o]. Whatever reſearches I have been able to make on this ſubject, I confeſs that I have not been able to find the leaſt ſigns of it in antiquity. Every thing ſays to us, that we ought to refer to the arrival of Cadmus the knowledge of alphabetic characters in Greece. The compariſon of the Phœnician alphabet, and the Greek alphabet, would alone be ſufficient to convince us. It is viſible that the Greek characters are only the Phœnician letters turned from right to left. Let us add to this the names, the form, the order, and value of the letters which are the ſame in one and the other writing[p]. The reaſons which they would oppoſe to this ſentiment appear to me ſo weak and ſo void of authority, that I do not think I ought to ſtop to oppoſe them.

The ancient Phœnician alphabet brought into Greece by Cadmus, was defective enough; it ended at *Tau*[q]. It was only afterwards and at different times that they added to it *Upſilon, Phi, Pſi*, &c[r]. If we have regard to ſome Greek[s] and Roman[t] authors, this firſt alphabet would have been ſtill more imperfect than we have ſaid. They will have it in effect, that the alphabet of Cadmus had only been compoſed of ſix letters. They name Palamedes, Simonides, Epicharmes, for the authors of the new letters with which the Greek al-

[m] Herod. l. 5. n. 58.; Ephorus *apud* Clem. Alex. ſtrom. l. 1. p. 362.; Diod. l. 3. p. 236.; Plin. l. 7. ſect. 57. p. 412.; Tacit. annal. l. 11. n. 14.; Euſeb. præp. evan. l. 10. c. 5. p. 473.

[n] Tacit. annal. l. 11. n. 14. [o] Acad. des inſcript. t. 6. p. 616.

[p] See Bochart chan. l. 1. c. 20 p. 490. *&c.*

[q] See acad. des inſcript. t. 23. mem. p. 420. [r] Ibid. *loco cit.*

[s] Plut. t. 2. p. 738. F. [t] Plin. l. 7. ſect. 57. p. 412. & 413.

phabet

phabet was ſucceſſively enriched. But this account very much reſembles a fiction of the Greek gammarians, very ignorant of the origin of their own language; a fiction adopted afterwards by the Roman authors, and by the greateſt number of our modern writers. Many reaſons bring me to think thus. The diverſity of ſentiments, about theſe pretended inventors of letters which were wanting in the ancient Greek alphabet [u], prove at firſt ſight how very uncertain every thing was they have ſaid of their diſcoveries. I find afterwards in the Greek language more than ſix Phœnician letters which agree with each other both in name and ſound [x]. Beſides, there are numbers of the moſt common Greek words, the moſt ancient and the moſt neceſſary, which are only written by means of the letters which they attribute the invention of to Palamedes, to Simonides, or to Epicharmes [y]. Laſtly, we ſee that the form of the characters has greatly varied among the Greeks; it has experienced ſucceſſive changes, ſimilar to thoſe which the writing of all languages has experienced. I obſerve, that ſome of the characters which they pretend to have been newly invented, only appear to be modifications of other letters more ancient [z]. We ought not then to regard what ſome modern writers have propagated about the pretended augmentations made ſucceſſively to the alphabet of Cadmus by Palamedes, Simonides, and Epicharmes. Theſe facts are nothing leſs than proofs, that cuſtom alone can have enriched the Greek alphabet with the characters of which it had need [a].

We ſee, by all that remains of the monuments of antiquity, that originally the Greeks formed alternately their lines from right to left, and from left to right, in the ſame manner that ploughmen draw their furrows. This is what has made them give to this ancient manner of writing the name

[u] See Hermannus Hugo, de prima ſcrib. orig. c. 3.; Fabricius, bibl. Græc. l. 1. c. 23. n. 2. t. 1. p. 147.

[x] See le Clerc, bibl. choiſ. t. 11. p. 39. 40. [y] Id. ibid.

[z] See acad. de inſcript. t. 23. mem. p. 420. & 421.

[a] Id. ibid. *loco cit.*

of

of *Bouſtrophedon*, a word literally ſignifying *furrowed writing* *.

I doubt further if we ought to look upon the Greeks as the inventors of this manner of writing. I am much inclined to think that the Phœnicians wrote thus originally, and that even at the time of Cadmus. It is in effect more than probable, that the Greeks, on receiving the writing of the Phœnicians, would at firſt follow the manner in which theſe people ranged their characters. Even this practice, which now ſeems to us ſo odd, yet might be that which ſhall firſt have preſented itſelf. In the origin of alphabetic writing, and when they had begun to make uſe of that invention, it muſt have appeared very natural to continue the line backwards, and to follow it thus alternatively. I ſhould think, that they muſt have had ſome reflection to have determined them, after the firſt line was finiſhed, to bring back their hand under the firſt letter of that line, and thus to begin again all the lines in the ſame way. It is true, that, in the manner of writing in *Bouſtrophedon*, they were obliged at each line to form a part of the ſame characters in a contrary way. But experience teaches us, that, in making diſcoveries, we almoſt always begin with the moſt difficult proceſſes. Moreover, I preſume, that in the early times they only writ with capital letters; and we know that in the Greek alphabet there are many which we may form equally contrarily. We muſt obſerve further, that originally they ingraved theſe characters on hard ſubſtances, or at leaſt very firm ones. This practice did not permit to write faſt as we do at this time. In this caſe it would be almoſt indifferent to ingrave the ſame characters from right to left, or from left to right.

Writing in *Bouſtrophedon* had ſubſiſted a long time in Greece. It was in this manner that the laws of Solon were written †. This legiſlator publiſhed them about 594 years

* I did not think it neceſſary to give a model of this ſort of writing, reflecting that it is found in many works which are in the hands of every body. See among others vol. 23. des mem. de l'acad. des inſcriptions.

† Suid. in Κάτωθεν νόμος, t. 2. p. 674.; Harpocrat. in Κάτωθεν νόμος, p. 203.

before

before the Chriſtian æra. They have likewiſe diſcovered ſome inſcriptions in *Bouſtrophedon* which only aſcend between 500 and 460 years before Chriſt [c].

The Greeks only knew very lately the inconveniency of forming their lines alternatively from left to right, and from right to left. At laſt indeed they found, that the method of writing uniformly from left to right was the moſt natural, becauſe it reſtrained and fatigued the hand leſs [d]. This diſcovery muſt have made them inſenſibly abandon writing in *Bouſtrophedon*. An ancient author, whoſe works have not yet been publiſhed, ſays, according to the report of Fabricius, who cites him in his Bibliotheca Græca, that it was Pronapides who firſt introduced into Greece the method of writing uniformly from left to right [e]. This Pronapides paſſed in antiquity for having been the preceptor of Homer [f]. We may then advance, that it was nearly about 900 years before Chriſt that the Greeks began to write uniformly from left to right. But we had better confeſs that we can ſay nothing very ſatisfactorily on the ages in which this practice has been conſtantly obſerved in Greece. We ſee plainly, by ſome monuments which aſcend to very remote times, that this ſort of writing had place among the Greeks very anciently. The Abbé Fourmont has reported in his voyage to the Eaſt, inſcriptions written from left to right, which appear to have been at the time of the firſt war between the Lacedæmonians and the Meſſenians, that is to ſay, 742 years before Chriſt [g]. But we know alſo, that, near 100 years after that event, writing in *Bouſtrophedon* muſt have ſtill been in uſe. The manner in which I have juſt ſaid the laws of Solon [h] were written, and other inſcriptions poſterior to that legiſlator, prove it ſufficiently. It appears then, that, for ſome ages, they continued to write indifferently in *Bouſtrophedon*, and uniformly from left to right. Further, it does not appear to me poſſible to determine preciſely the time in

[c] Muratori, nov. theſ. t. 1. col. 48.
[d] See part 1. book 2. chap. 6.
[e] Bibl. Græc. t. 1. l. 1. c. 27. n. 2. & 3. p. 159. [f] See Diod. l. 4. p. 237.
[g] Acad. des inſcript. t. 15. p. 397. t. 16. hiſt. p. 104.
[h] *Supra*, p. 232.

which the firſt of theſe practices had been abſolutely aboliſhed. It can only be time, reſearches, and ſome happy events which can procure us an explication of all theſe difficulties.

The Phœnician writing, in paſſing from Aſia into Greece, received a change ſtill more conſiderable than what I have ſpoke of. The Phœnicians, like moſt of the eaſtern people, did not expreſs the vowels in writing; they contented themſelves with aſpirating them in pronunciation. The Greeks, whoſe language was more ſoft than that of the Phœnicians, had not occaſion for ſo many aſpirations: they converted them then into vowels which they expreſſed in their writing. This change was very eaſy: the name of the principal aſpirations uſed in the Phœnician language muſt naturally have furniſhed that of the Greek vowels [l].

This manner of writing could not certainly have taken place at the beginning when Cadmus inſtructed Greece in the art of writing. There muſt have paſſed ſome time before they could have thought of making changes in the Phœnician writing. It would be difficult to aſſign the epoch in which the vowels had been introduced into the Greek writing. We may perhaps, after an ancient hiſtorian, attribute that innovation to Linus [k], the maſter of Orpheus, of Thamyris, of Hercules, &c. This perſon ſo famous in antiquity was of Thebes in Bœotia [l], a city founded by Cadmus, and where, of conſequence, writing muſt have been ſooner perfected. But, moreover, this is only a conjecture on which I do not pretend to inſiſt.

The Greeks, in their common buſineſs, uſed originally to write on tablets of wood covered with wax [m]. It was with a ſtyle of iron that they drew their characters [n]. With reſpect to laws, treaties of alliance or of peace, it was their cuſtom to ingrave them on ſtone or on braſs [o]. They preſerved in

[l] See Bochart, chan. l. 1. c. 20. p. 493.
We may nevertheleſs ſtill believe that anciently the Phœnicians expreſſed the vowels in their writing. This conjecture is not void of foundation. But it would draw us into too long a diſcuſſion.

[k] Dionyſ. *apud* Diodor. l. 3. p. 236. [l] Pauſ. l. 9. c. 29.

[m] Iſidor. orig. l. 6. c. 8. [n] Id. ibid.

[o] Pauſ. l. 4. c. 26.; Tacit. annal. l. 4. n. 26. & 43.; Suid. *in* Ἀναξίλαος, t. 1. p. 89.

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the ſame manner the remembrance of events which intereſted the nation, and the ſucceſſion of princes who had governed them [p].

Beſides, it appears, that it has been anciently with the Greeks the ſame as with all other people of antiquity, that is to ſay, that, in early times, they made very little uſe of writing. We ſee by Homer, that, in the heroic ages, they did not uſe it in the moſt neceſſary acts of civil life. They decided proceſſes and differences by the verbal depoſition of ſome witneſſes [q]. We have even room to doubt whether treaties of peace were then reduced to writing.

In the Iliad, the Greeks and the Trojans ready to engage, propoſe to terminate their differences by a ſingle combat between Paris and Menelaus: they ſtipulate what ſhall be the conditions on each ſide according to the event of the battle. Priam and Agamemnon advance to the middle of the two armies. They bring lambs to ſacrifice, and wine to make libations: Agamemnon cuts the wool from the head of the lambs: the heralds of the Greeks and Trojans divide it between the princes. Agamemnon declares with a loud voice, the conditions of the treaty. They cut the throats of the lambs, they make libations; the treaty is ratified [r]; and it is not ſaid, that the conditions were couched in writing.

On another occaſion, Hector challenges to ſingle combat, the moſt valiant of the army of the Greeks. Many princes preſent themſelves, to accept the defiance: they agree, that chance ſhall determine who ſhall fight the ſon of Priam. The manner in which they proceed is remarkable: inſtead of writing his name, each of the princes makes a mark which he caſts into the helmet of Agamemnon [s].

If they were to erect a monument, Homer does not ſay that they put any inſcription upon it [t]: we ſee, that they then contented themſelves to put on the monuments a column, or ſome other characteriſtic mark [u]. Laſtly, there is not

[p] Acad. des inſcript. t. 15. p. 397. [q] Iliad. l. 18. v. 499. *&c.*
[r] Ibid. l. 3. v. 140. [s] Ibid. l. 7. v. 175. *&c.* [t] Ibid. l. 23. v. 245. *&c.*
[u] Iliad. l. 17. v. 434.; Odyſſ. l. 12. v. 14. & 15.

ſpoken of by this poet any correſpondence, or any order given in writing. They gave all their inſtructions and all their commiſſions verbally.

The only time that mention is made of writing in Homer is with relation to Bellerophon: he ſays, that Prætus ſent that prince to carry to Jobate, a letter which contained an order to put him to death [y]. This letter, as far as we can judge, was written on tablets covered with wax [x]. It muſt be notwithſtanding, that the error of writing ſo rarely as they did in the heroic times, was not continued, and writing muſt neceſſarily become more common between the ſpace of time that paſſed from the war of Troy to the age of Homer. The degree of perfection to which we ſee in the time of that poet the Greek language was already brought, is a certain proof of it. It had then all the characters of a rich language, poliſhed, regular, in a word, capable of all kinds of writing. But the Greek language could never have come to that purity and that elegancy, if, from the war of Troy to the age of Homer, the Greeks had not writ much *.

[x] Iliad. l. 6. v. 168. *&c.*

We might perhaps remove the doubts about the ſignification of the terms uſed by Homer on this occaſion; and it muſt be confeſſed, that theſe doubts are not without foundation. For Homer deſigns what Bellerophon ſhewed to Prætus, only by the vague word σήματα, literally, *marks, ſigns*. This manner of expreſſion is ſingular enough, and does not deſign alphabetic writing but very vaguely. The word σήματα would agree better with hieroglyphics. Nevertheleſs I have thought I ought to follow the common manner of interpreting this paſſage.

[y] See Plin. l. 13. ſect. 20. & 27. l. 33. ſect. 4.

* We muſt obſerve, that Homer was born and brought up in Aſiatic Greece; it was then in thoſe countries that the Greek language began to be formed and perfected.

BOOK

BOOK III.

Of Sciences.

I Have treated of the origin of ſciences in the firſt part of this work, I have even tried to unfold their progreſs: I often could not do it, but by the help of many conjectures. There now remains to us ſcarce any detail about the events that happened in that high antiquity: the ages which we now run over, will furniſh us with more matter for our reſearches. The facts are ſufficiently known, and even circumſtantial enough. We ſhall ſee among ſome nations a remarkable progreſs, which muſt be attributed probably to the invention of alphabetic writing *.

Before the diſcovery of that admirable art, the people had, it is true, ſome means to preſerve the memory of their diſcoveries. But theſe ſuccours were ſo imperfect, that they could contribute but weakly to the advancement of the ſciences, and, if I may uſe the word, to their propagation. Alphabetic writing has removed all obſtacles: the ſciences are extended and multiplied. Different colonies, coming from Egypt and Aſia, brought the ſciences into Greece, and drew that part of Europe from barbariſm and ignorance. The ſciences did not find at their firſt beginnings a ſoil or minds properly diſpoſed. The fruits which they bore, were in ſmall abundance, and came very late. It was by length of time that Greece was indebted for all ſorts of knowledge which has ſo greatly diſtinguiſhed

* The reader will perceive without doubt, that I here recall nearly the ſame ideas which I have already preſented in the beginning of the preceding book. But as it is important, that he ſhould not loſe the view of the plan and the gradation which I have propoſed in this work, I thought theſe repetitions neceſſary. I even foreſee, that I ſhall be forced ſtill to make uſe of it more than once.

them

them from other countries. But that ſlowneſs has been compenſated by the beauty and the abundance of the productions of every ſort which ſhe has brought forth ſince.

CHAP. I.

Of Aſia.

WE have ſeen before, that the hiſtory of Aſia was almoſt entirely unknown to us in the ages which make our object at preſent. The little that we have been able to collect, only regards the people who inhabited the coaſts of that part of the world which are waſhed by the Mediterranean. The Phœnicians have been almoſt the only ones about whom hiſtory has furniſhed us at this time with any lights: they ſhall alſo be the only ones of whom I will ſpeak in this article.

It is in Phœnicia that we find the firſt traces of a philoſophic ſyſtem of the origin and the formation of the world. We ought in effect to put in the rank of the firſt philoſophers that Aſia has produced, Sanchoniatho, of whom Euſebius has preſerved for us a valuable fragment [a]. This author wrote about the beginning of the ages we are at preſent running over: his work is, after the books of Moſes, the moſt ancient monument which remains to us of antiquity. Sanchoniatho has tranſmitted to us, as well as a philoſopher as an hiſtorian, the ancient traditions of the Phœnicians; I have often made uſe of the little that remains of his writings [b]. It is one of the ſources from whence I have drawn, in a great meaſure, the hiſtory of the arts and the diſcoveries in the firſt ages. It is commonly thought, that Sanchoniatho was cotemporary with Joſhua [c].

[a] See at the end of the firſt vol. our diſſertat. on the fragment of Sanchoniatho.

[b] See, ibid. what we think of this work.

[c] See Bochart, chan. l. 2. c. 2.; Fournont, reflex. critiq. ſur l'hiſt. des anc. peuples, t. 1. p. 36. & 37.

We

We alſo ſee that there is mention made in the book of Joſhua of a city in Paleſtine, named *Dabir*. The ſacred hiſtorian obſerves, that that city was formerly called *Cariath-Sepher* [d]. The name by which that city was originally known, leads us to believe, that, in the early times, they had in Paleſtine public ſchools where they taught the ſciences. *Cariath-Sepher* in effect ſignifies the *city of books*, or *of letters*. A ſimilar denomination ſeems to ſhew, that they had commonly a great number of learned men aſſembled in that city. The ſciences muſt conſequently have been much cultivated in Paleſtine from the firſt ages after the deluge.

We ought not moreover to be ſurpriſed at this. Theſe countries had been certainly the firſt which were policed [e]: it is natural then that they ſhould have produced in it very early many philoſophers. Thus we ſee that the firſt ſyſtems of philoſophy aſcended among the Phœnicians to very remote epocha's. This is what we learn from the writings of Sanchoniatho. That author has drawn from ancient works the ideas which he has propagated about diſintangling the chaos, of the original ſtate of the world, and of the firſt events which happened in it [f]. It is certain then, that, in the moſt early times, the Phœnicians had carried their ſpeculations ſo far as to explain the manner in which the world had been formed. How obſcure and how perplexed ſoever their coſmogony was, it ſuppoſes nevertheleſs ſome ſtudies, ſome reſearches, and ſome reaſonings. For the reſt I do not think I ought to dwell upon the ideas theſe Aſian philoſophers had about the origin and formation of the world: and now other critics and literati have already taken care to explain that ſyſtem, for me to be diſpenſed with from giving an account of it. I ſhall only remark, that the nearer we go to the ages bordering on the creation, the more traces we ſhall find of that great truth, which the preſump-

[d] Joſh. c. 15. v. 15. [e] See part 1. book 1.
[f] Euſeb. præp. evang. l. 1. p. 31.

tion

tion and raſhneſs of man has in vain endeavoured afterwards to obſcure *.

One Moſchus of Sidon furniſhes us with the moſt ancient example of this fooliſh enterpriſe. He has been looked upon as the firſt who has ſhewed the abſurd ſyſtem of the formation of the world by the fortuitous concourſe of atoms [h]; a ſyſtem which, many ages afterwards, Epicurus endeavoured to renew in Greece. Strabo further tells us, that Moſchus, of whom we now ſpeak, wrote about the time of the war of Troy [i]. We cannot decide whether this opinion is well or ill founded, Strabo being, as I think, the only one of the ancients who has ſpoken of this Moſchus.

With reſpect to the ſciences properly ſo called, the na-

* Euſebius, and after him ſome modern writers, have thought that the coſmogony of Sanchoniatho led to Atheiſm, becauſe this author appears to give little, or no part to the ſovereign being in the formation of the world. But Cudworth, in his intellectual ſyſtem, pretends, and with reaſon, that Sanchoniatho admits two principles, of which one is an obſcure and dark chaos; the other Πνεῦμα, a ſpirit, or rather an intelligence endowed with goodneſs, who has arranged the world in the ſtate in which it is. This ſentiment is ſo much the more true, as Sanchoniatho had drawn his coſmogony from the writings of Thaut; and the ſame Euſebius teaches us after Porphyry, that Thaut was the firſt who had writ of the gods in a manner more elevated than the vulgar ſuperſtition; Syrmumbelus and Thuro, writers poſterior to Thaut by many ages, have cleared up his theology concealed till their times under allegories and emblems. That obſcurity and this enigmatic ſtyle have impoſed on Euſebius, and the modern authors of whom I ſpeak. Yet they could not hinder themſelves from acknowledging and agreeing, that the deſign of Sanchoniatho was to give credit to idolatry. Now, nothing is more oppoſite to idolatry than Atheiſm.

In another fragment drawn from the ſame Sanchoniatho, it was ſaid that Thaut had meditated much about the nature of the ſerpent called by the Phoenicians Ἀγαθοδαίμων, *good genius*. Philo teaches us, that Zaroaſter, in his ſacred commentary on the ceremonies of the Perſian religion, has ſpoken of this *good genius* in an admirable manner, by ſaying that this God is the maſter of all things, exempt from death, or eternal in his duration, without beginning, without parts, *&c. Apud* Euſeb. praep. evang. l. 1. c. 10. p. 41. & 42. I aſk if ſuch ideas lead to Atheiſm?

I have already ſaid, Euſebius, and the modern authors who have followed him, have been deceived by the enigmatic ſtyle of Sanchoniatho. It was, beſides, the general taſte of the learned of antiquity. They affected to ſpeak only in riddles, by emblems, and in a manner almoſt unintelligible. No philoſopher of theſe ancient times has preſented his doctrine plainly and ſimply. No one has even ſhewn any part of the ſciences whatever it was, in a clear and intelligible manner. This taſte ſtill reigns at this time in all the eaſtern writings.

[g] Strabo, l. 16. p. 1098. [h] Id. ibid.

vigations

vigations of the Phœnicians muſt have contributed much to the advancement of aſtronomy and geography. It was in the ages of which we are now ſpeaking, that theſe people undertook thoſe voyages of great extent which have rendered their names ſo famous in antiquity. They paſſed the ſtraits of Cadiz, and truſting themſelves on the ocean, they advanced on one ſide to the weſtern extremity of Spain, and on the other to the coaſt of that part of Africa which is waſhed by the Atlantic [i]. The diſcovery which the Phœnicians made of the help they could draw from the obſervation of the polar ſtar to direct the courſe of a veſſel, was the cauſe of the ſucceſs which accompanied their maritime enterpriſes [k]. I reſerve the circumſtances of them for the article of navigation. The details into which I ſhall then enter, will make us better perceive to what degree the Phœnicians muſt have poſſeſſed, even in the ages which at preſent fix our attention, the principal parts of mathematical ſciences.

CHAP. II.

Of the Egyptians.

HIſtory, in the ages we are at preſent ſpeaking of, will furniſh us with many lights on the ſtate of ſciences in Egypt. I ſhall treat each object ſeparately, and under different articles; and I ſhall ſhew their ſtate and progreſs relatively to the times which make the ſubject of the ſecond part of my work.

ARTICLE I.

Of Medicine.

IN examining the origin and ſtate of medicine in the firſt part of this work, I have ſaid that there was no mention

[i] See *infra*, book 4. chap. 2. [k] See ibid. *loco cit.*

made of phyſicians by profeſſion before the time of Moſes. I have related the ways which they uſed originally in treating the ſick, and the expedient they had invented to the end that every body might profit by particular diſcoveries. They expoſed the ſick in public to enable them to receive the ſalutary counſels which each could give them[l]. It is proper to remark, that then they did not know writing. Since the invention of that art they put in practice another cuſtom which muſt ſtill have contributed more to make known the different remedies which they could uſe. Thoſe who had been attacked with any diſtemper, put in writing how and by what means they had been cured. Theſe memoirs were placed in their temples[*] to ſerve for the inſtruction of the public. Every one had a right to go and conſult them, and to chuſe the remedy of which he thought he had need [*].

Afterwards, the number of theſe receipts being augmented, it became neceſſary to put them in order. Thoſe who were charged with this care, came to know more particularly the compoſition of the different remedies. By comparing the one with the other, they learned to judge of their virtue. They acquired by that means more exact knowledge than what they had before. They began from that time to conſult theſe ſorts of perſons, and to call them on critical occaſions. As Moſes ſpeaks of phyſicians by name [m], we may, I think, refer to the ages in which he lived, the origin of that profeſſion.

We ought to look upon the Egyptians as the firſt who reduced into principles, and ſubjected to certain rules, the vague and arbitrary practices by which they were guided

[l] See part 1. book 3. chap. 1.

[*] In Egypt, theſe ſorts of regiſters were depoſited in the temple of Vulcan at Memphis. Galen. *de compoſit. medicament. per genera*, l. 5. c. 2. t. 13. p. 775. edit. Charterii.

The ſame cuſtom was alſo obſerved in other countries. See Plin. l. 29. c. 1. p. 493.; Pauſ. l. 2. c. 27. & 36.; Strabo, l. 8. p. 575.

It was from theſe regiſters, according to Pliny and Strabo, that Hippocrates had drawn a great part of his knowledge. Plin. *loco cit.*; Strabo, l. 14. p. 972.

[m] Exod. c. 21. v. 19.

for

for a long time. They paſſed in antiquity for having cultivated medicine more anciently and more learnedly than any other people [n]. It is not very difficult to give a reaſon for this. There never had been a country where phyſicians had been, and ſtill are more neceſſary than in Egypt. The overflowings of the Nile expoſed them at all times to frequent maladies. The waters of that river having no free courſe during the two months and an half which precede the ſummer-ſolſtice, it muſt neceſſarily happen that they ſhould be corrupted [o]. When the inundations are great, the Nile in retiring forms marſhes which infect the air [p]. Theſe ſtanding waters have always occaſioned in Egypt epidemic diſtempers. They muſt particularly have felt the pernicious effects in the firſt ages, when they had not yet taken the neceſſary precautions to facilitate the running off of the waters. But theſe very precautions muſt have been for a long time baneful to the inhabitants of that climate. The moving of the earth occaſioned by the conſtruction and maintaining of that innumerable quantity of canals with which Egypt was formerly watered, and the works which they muſt have made to drain the moraſſes, muſt have produced moſt troubleſome accidents. It is known what malignant vapours theſe ſorts of earths juſt moved produce.

Beſides, the inhabitants of the cities and the villages which were not upon the borders of the Nile, did only drink for the greateſt part of the year ſtanding and corrupt water [q]. That of the wells is not better [r]. Springs are extremely uncommon in Egypt. It is a ſort of prodigy to meet with one [s].

Beſides, from the report of travellers, the air there is

[n] Hom. Odyſſ. l. 4. v. 231.; Iſocrat. *in* Buſirid. p. 329.; Plin. l. 7. c. 56. p. 414.; Clem. Alex. ſtrom. l. 1. p. 362.

[o] Voyage de l'Egypte par Granger, p. 19. & 20.

[p] Deſcription de l'Egypte par Maillet, p. 15. & 26.

[q] Granger, p. 25.
It is the water of marſhes formed by the overflowings of the Nile.

[r] Plut. t. 2. p. 367. B. [s] Maillet, p. 16.

very unwholeſome [t]. There reign annually in Egypt from the vernal equinox to the ſummer-ſolſtice deadly malignant fevers. In autumn, their thighs and knees are ſurrounded with carbuncles, which kill the patients in two or three days. At the time of the increaſe of the Nile, the greateſt part of the inhabitants are attacked with obſtinate dyſenteries cauſed by the waters of that river, which at that time are greatly loaded with ſalts [u].

The ſerene weather is above all the moſt dangerous in Egypt. As the ſun is very hot in theſe climates, it raiſes a great quantity of exhalations and malignant vapours, which cauſe great defluxions on the eyes; from hence it comes that we ſee ſo many blind people there [x].

This country is alſo ſubject to a very ſingular and very frequent inconveniency. When they are attacked with it, they think all their bones are broke [y]. Theſe accidents are produced by the winds which blow in Egypt. As they are loaded with many ſalts, they occaſion frightful pains in all parts of the body, often even palſies, which they cure with great difficulty. Thus we ſee very few robuſt people, and ſcarce any old ones in Egypt [z]. It was apparently the ſame when Jacob paſſed through it with his whole family. We ſhall be tempted to imagine, that the Egyptians had not been accuſtomed to have ſeen perſons of a very advanced age, by Pharaoh's queſtion to Jacob about the age of that patriarch *.

Egypt having been expoſed at all times to ſo great a number of general and habitual diſtempers, they muſt

[t] Gemelli, t. 1. p. 33. & 113.

[u] Granger, p. 21. &c.; Relat. d'Eg. par le Vanſleb. p. 36.

[x] Maillet, p. 19.; Granger, p. 22.; Voyage au Levant par Corneille le Brun, c. 40. *init.* edit. *in fol.*

[y] Maillet, p. 15. [z] Granger, p. 24. & 27.

* It is true, Herodotus ſays, that after the Lybians there were no men on the earth more healthy than the Egyptians. He attributes this good health to the temperature of the air which is always equal, l. 2. n. 77.

But it muſt be obſerved, that Herodotus only ſpeaks of a particular diſtrict. Travellers agree generally enough, that Egypt is a very unwholeſome country. We might join to the teſtimonies that we have already cited, that of Pietro della Valle, t. 1. p. 325. and of Gemelli, t. 1. p. 33. We may likewiſe ſee what Pliny ſays of the maladies peculiar to Egypt, l. 26. c. 1.

have

have tried very early to find out the proper means to remedy them. From hence came phyſicians.

We may conclude from what we find in hiſtory, about the practice of the Egyptians, that theſe people had been the firſt who had perceived the neceſſity of dividing among many perſons the different objects of medicine.

The ancients tell us, there has been no country where phyſicians were in ſuch great numbers as in Egypt. They inform us at the ſame time, that thoſe who exerciſed that profeſſion, did not undertake to treat indifferently all ſorts of diſtempers. They had for diſtempers of the eyes, for thoſe of the head, for thoſe of the teeth. The diſtempers of the bowels, and the other internal maladies, had likewiſe their particular phyſicians [a]. The Egyptians were not a long time in comprehending that the life and ſtudy of one man was not ſufficient to be inſtructed perfectly in all the parts of a ſcience ſo extenſive as phyſic. It was for this reaſon they obliged thoſe who embraced that profeſſion, only to apply themſelves to one ſort of diſtemper, and to make that the only object of their ſtudy. The ancient authors, by inſtructing us in this practice, have tranſmitted nothing to us of the nature of the remedies which the Egyptians uſed. They have only given us general notions on this ſubject. We know only that theſe people made a vaſt uſe of regimen and purging drinks *. Perſuaded that all diſtempers came from the aliments, they looked upon the remedies which tended to evacuate the humours as the moſt proper to preſerve health [b]. We ſee farther, by the expoſure which an ancient author has made of their ſyſtem of phyſic, that they excluded every remedy whoſe application might become dangerous. They only employed thoſe which they might uſe as ſafely as their daily food [c].

It appears further, that theſe people were as much buſied

[a] Herod. l. 2. n. 84.

* They believe the purge of the Egyptians was a ſort of *horſe-radiſh*, or an herb which reſembles *celery*. There are even ſome who will have it that it was a compoſition not unlike *beer*. Le Clerc hiſt. de la medic. l. 1. c. 18. p. 58.

[b] Herod. l. 2. n. 77.; Diod. l. 1. p. 73. [c] Hocrat. *in* Buſir. p. 329.

with

with the care of preventing diſtempers as with that of curing them. What gives room to think thus, is, that it is ſaid, that the Egyptians uſed to purge every month, for three days ſucceſſively, with vomits and clyſters [d].

The Egyptians are ſaid to have firſt made known and uſed the oil of ſweet almonds [e]. We may alſo rank in the number of medicines invented by theſe people, Nepenthe, to which Homer gives ſuch high encomiums. Helen, as he ſays, had learned the compoſition from Polydamna, wife of Thonis king of Egypt. This medicine was ſo admirable that it made one forget all ills, and diſſipated all wearineſs [f].

The qualities of the *Nepenthe* of Homer have, as appears to me, a great relation to thoſe of opium. We know that the virtue of that medicine is not only to provoke ſleep; it has that of making us gay, and of producing even a ſort of drunkenneſs. Thus we ſee that the Egyptian women who uſed a great deal of Nepenthe, were looked upon formerly ſolely to poſſeſs the ſecret of diſſipating anger and chagrin [g]. Opium is at this time very much uſed in the eaſt *; a cuſtom which we ought to regard as a conſequence of the attachment which theſe people have always had for original practices: therefore I am very much inclined to believe that it is of this ſort of medicine that Homer would ſpeak under the name of *Nepenthe*, and that in his time the Egyptians were perhaps the only people who knew the preparation of it †.

The manner of treating diſtempers in Egypt did not depend upon the will and choice of the phyſician. All the precepts concerning medicine were contained in certain ſacred books. The phyſicians were obliged to con-

[d] Herod. Diod. *ubi ſupra.*
[e] P. Æginet. *de* re med. l. 7. c. 20.
[f] Odyſſ. l. 4. v. 220. & ſeq.
[g] Diod. l. 1. p. 109.

* The Turks take about a drachm of it when they prepare to march to battle.

† Yet it muſt be agreed, that the opinions of the critics are pretty much divided about what Homer would deſign by the *Nepenthe*. We may conſult on this ſubject the diſſertation of Father Petit, intitled, *Homeri Nepenthes*, Traject. 1689.

form

form to them exactly.[h] It was not permitted them to change any thing[h]. If they could not ſave the diſeaſed by following that method, they were not anſwerable for the event; but if they rejected it, and the ſick perſon happened to die, they were puniſhed with death[i]. This ſubjection of the phyſicians of Egypt to the cuſtom of the country is farther confirmed to us by Ariſtotle: he ſpeaks of an ancient law of the Egyptians, by which it was forbid the phyſicians to ſtir the humours, that is to ſay, to purge the ſick before the fourth day of the diſtemper, unleſs they would do it at their own riſk[k]. We may judge after this expoſure, if medicine could ever make any progreſs in Egypt, or be enriched with uſeful diſcoveries. The ſtate of the diſeaſed, the ſymptoms and the daily accidents, were not what determined the phyſicians to apply the principles of their art. The theory and even the practice being fixed, they had leſs need of judgment than of memory. The Egyptians apparently imagined, that all bodies were conſtituted in the ſame manner; and, againſt daily experience, they preſumed the diſtempers were not combined differently.

Some authors pretend, that, with a view to make their remedies more efficacious, the Egyptian phyſicians added to the ſtudy of their profeſſion that of aſtrology, and of certain myſterious rites[l]. They ſay, that phyſic in theſe countries was mixed with many ſuperſtitious practices[m]. This opinion appears probable enough. We know that theſe people gave themſelves a good deal up to judicial aſtrology. Herodotus aſſures us that there had not been a nation more ſuperſtitious than the Egyptians[n]. It ſhould not

[h] Diod. l. 1. p. 74.

This was a conſequence of the ſame ſpirit of attachment that the Egyptians had for every thing that was eſtabliſhed anciently. See Plato de leg. l. 2. p. 789

[i] Diod. l. 1. p. 74.

[k] De repub. l. 3. c. 15. p. 358. or rather, according to Victorius, p. 265. on this paſſage of Ariſtotle, to alter nothing of the laws eſtabliſhed which forbid them to do any thing before the fourth day had paſſed, this is conſonable to the doctrine of Hippocrates.

[l] Scholiaſt. *in* Ptolom. Tetrabibl. l. 1.

[m] Conringius de Hermetica medic. l. 1. c. 12. &c.; Borrichius *de* ortu & progreſſu chemiae, p. 59.; Le Clerc, hiſt. de la medic. l. 1. c. 5 p. 13.

[n] L. 2. n. 37. 65. 82.

then

then be ſurpriſing, that they had believed that the influence of certain planets, and the protection of ſome tutelary genii contributed much to the curing of diſtempers. Yet we muſt agree, that neither in Herodotus, nor in the authors of great antiquity, do we find any thing which authoriſes us to believe that the Egyptians employed ſuperſtitious practices in the manner of treating the ſick.

We ſhall finiſh what concerns phyſic in Egypt, by remarking the attention the government paid to every thing that could concern the preſervation of the citizens. It coſt the Egyptians nothing to be attended when they were at war, or when they travelled in the kingdom. They had phyſicians paid with the public money, to take care of thoſe who fell ſick on theſe occaſions [o]. This fact farther proves to us, that phyſic was not practiſed for nothing. It was the ſame with the Hebrews. Moſes ordered, that if two men happened to fight, and one of them was wounded, the aggreſſor ſhould render to him whom he had ſtruck, what it ſhould coſt him for being cured [p]. This precept was founded, without doubt, on the practice already eſtabliſhed, of paying the phyſicians for the care they took of the ſick.

ARTICLE II.

Of Aſtronomy.

I Could only give very vague and very ſuccinct notions of the ſtate of aſtronomy among the Egyptians in the firſt ages. We have there ſeen, that, before Moſes, theſe people had a ſolar year compoſed of 360 days [q]. It was very probably from the obſervation of the difference, and the inequality of the meridian ſhadows, that the Egyptians came to perceive that the revolution of the ſun in the courſe of a year, greatly ſurpaſſed the duration of twelve lunations.

[o] Diod. l. 1. p. 74.

[p] Exod. c. 21. v. 19. *Mercedem medici ſolvet*, ſays the Chaldaic paraphraſe on this verſe.

[q] See part 1. book 3. chap. 2. art. 2.

There

There is great room to think, that to meaſure the different heights of theſe meridian ſhadows they had uſed originally the gnomons which nature had ſhewn to them, ſuch as trees, mountains, edifices, *&c.*

But natural gnomons could not furniſh the means of exactly meaſuring the duration of a ſolar year; the Egyptians ſoon perceived their imperfection and inſufficiency, nevertheleſs, without knowing the utility theſe ſorts of inſtruments might be of. This double conſideration led them to invent artificial gnomons. We cannot conteſt with theſe people the merit of having brought them firſt into uſe. It is impoſſible not to recogniſe in the obeliſks, gnomons conſtructed, with ſo much care, expenſe, and ſtudy. For to imagine that the Egyptian monarchs, in cauſing theſe enormous maſſes to be cut, propoſed no other end, but a fooliſh oſtentation of their riches and their power; this is what I cannot perſuade myſelf of. The choice of this ſort of monument does not appear to me to have been made by chance. The form of the obeliſks was not ſolely owing to caprice and fancy. The ſovereigns who had cauſed them to be made, tried moſt certainly to immortalize themſelves by theſe grand enterpriſes; but it was the motive of public utility, and the glory of contributing to the advancement of the ſciences, which muſt have directed the form and choice of theſe ſorts of monuments.

It is not, even here, a ſimple conjecture on our part. We have a glimpſe, in a paſſage of Appion reported by Joſephus[r], that at all times the obeliſks had been deſtined by the Egyptians for aſtronomic uſes. This grammarian gives a deſcription of a ſort of gnomon, ſingular enough, which he attributes to the invention of Moſes. The legiſlator of the Jews had invented it, ſays he, to anſwer the ſame purpoſes as the obeliſks. Nothing truly can be more ill founded or more abſurd, than all that Appion has related

[r] Adverſ. App. l. 2. p. 469. edit. of Havercamp.

on the account of Moſes; but this paſſage at leaſt proves, that, in antiquity, they were perſuaded that the obeliſks had been originally raiſed to ſerve for gnomons; and this is all that I pretend to eſtabliſh.

To the teſtimony of Appion let us join the authority of Pliny. According to that author, the Egyptians had cut their obeliſks in imitation of the rays of the ſun. He adds, that this was the name by which they deſigned theſe grand ſpires [r]. This denomination, without doubt, was relative as much to the form of theſe monuments as to the uſe for which they employed them *.

Even though we had not preciſe teſtimonies about the uſe for which the Egyptians had deſtined their obeliſks, what a nation has done which was never diſtinguiſhed by its aſtronomic knowledge, will ſuffice to inſtruct us of it. Auguſtus, after having ſubdued Egypt, cauſed to be tranſported to Rome two grand obeliſks: he ſet up one in the Circus, and the other in the Campus Martius. He took all the neceſſary precautions, that it might ſerve for a gnomon [s]. Auguſtus, in making this obeliſk ſerve for aſtronomic obſervations, probably only imitated the practice of the Egyptians. Theſe people had not invented theſe ſort of monuments only to procure more ſure and exact inſtruments than natural gnomons, to determine the duration of the ſolar year by the meaſure of the meridian ſhadows. I do not think I need repeat what I have ſaid elſewhere of the antiquity of obeliſks. I have ſhewn that we muſt fix the epoch to the reign of Seſoſtris, that is to ſay, about 1640 years before Chriſt [u].

[r] Plin. l. 36. ſect. 14. p. 735.

* The Egyptians had apparently given the name of the rays of the ſun to obeliſks, becauſe they could conceive the ſphere of that ſtar, as being divided into an infinity of pyramids which had their ſummit at the ſurface of his diſk, and their baſe at the circumference of that ſphere. Daviler, in his dictionary of architecture, on the word *obelisk*, advances, that the Egyptian prieſts called theſe obliſks *the fingers of the ſun*, becauſe theſe grand ſpires ſerved for a ſtyle to mark on the earth the different heights of that ſtar. I am ignorant from what author of antiquity Daviler has drawn this fact.

[s] Plin. l. 36. ſect. 15. p. 736.

[u] *Supra*, book 2. chap. 3. p. 131.

Theſe

Theſe ancient gnomons were moreover greatly inferior to thoſe invented in our times. To convince us of this, it is ſufficient to caſt our eyes on thoſe which ſtill ſubſiſt. They are cut in the form of quadrangular pyramids cut off at the top; it was impoſſible of conſequence to determine any way the meridian, the point of the ſhadow formed by the ſummit of the obeliſk: that point made part of an impefect ſhadow very difficult to diſtinguiſh. It muſt then, in many caſes, be confounded with the body of the obeliſk *. But even ſuppoſing that they could come to determine this point with exactneſs, they could not give the true height of the ſun at noon, that is to ſay, that of its centre. They could only obtain the height of the north ſide of that ſtar.

An ingenious people, ſuch as the Egyptians were, muſt have perceived, almoſt from the firſt moment in which they employed obeliſks to meaſure ſhadows, the inconveniencies of that ſort of gnomon. The early knowledge which the Egyptians had acquired in geometry, ſuggeſted to them, without doubt, the ways to remedy the imperfection of their aſtronomic inſtruments. They contrived to put to the top of the obeliſks a ball ſupported by a very ſmall ſhaft, and elevated ſufficiently, that the ſhadow which it formed ſhould find itſelf abſolutely diſengaged from the ſhadow of the obeliſk. The projection of that ſhadow on the ground near the gnomon, formed an ellipſis, by which the middle determined, by its poſition, exactly enough the height of the centre of the ſun.

We do not find, it is true, in ancient authors any direct proof that the Egyptians were accuſtomed to place balls on the ſummit of their obeliſks; but we know that Auguſtus had one put upon the top of the obeliſk tranſport-

* This muſt happen every time that the meridian height of the ſun, that is to ſay, the arch of the meridian comprehended between the horizon and the ſun's place, ſurpaſſed the angle which the ſides of the obtuſe pyramid formed, which terminated the obeliſk, with the plane of its baſe. And it muſt be obſerved, that in Egypt, at the ſummer-ſolſtice, the height of the ſun muſt be more than 80 degrees.

ed by his order into the Campus Martius *. The ſame reaſons which have determined me believe that that Emperor only imitated the practice of the Egyptians, in deſtining that obeliſk to aſtronomical obſervations, make me think that it was alſo from their example that he added the ball of which I have ſpoke. Beſides, we ſee on very ancient Greek medals, obeliſks topped with a ball. We are not ignorant that the Greeks had from the Egyptians all their aſtronomic knowledge. Thus the academy of inſcriptions, conſulted by that of the ſciences, about the antiquity of that uſage in Egypt, have not heſitated to make it aſcend to the moſt remote ages *y*.

I think then we may refer to the times which at preſent employ us, not only the invention of gnomons, but moreover the practice of terminating them with balls. It is probable that to this diſcovery we ought to attribute the reform which the Egyptians made in the duration of their ſolar year; a reform which had conſtantly taken place in the ages which elapſed from the death of Jacob to the eſtabliſhment of monarchy among the Jews. This is what remains for me to diſcuſs.

I have ſaid before, that in the time of Moſes, that is to ſay, about 1480 years before Chriſt, the Egyptian year was compoſed only of twelve months, of thirty days each *z*. The advantage which theſe people drew from their induſtry, by being able to procure inſtruments more exact than natural gnomons, was to perceive that 360 days did not contain the whole duration of the annual revolution of the ſun. They eſtimated at firſt that exceſs to five days which they added to their year. Let us try to find in hiſtory ſome facts which may enable us to fix the epoch of this reform.

If we ſhould refer to the ancient traditions of the Egyptians, we muſt make the eſtabliſhment of the year of

* Plin. l. 36. ſect. 15. p. 737.

y Memoires de l'acad. des inſcript. t. 3. hiſt. p. 166.

z *Supra*, p. 249.

365 days. aſcend to the moſt remote times. This is the fable they have propagated on this ſubject.

They ſay, that Rhea having had a ſecret commerce with Saturn, fell with child. The Sun, who perceived it, loaded her with maledictions, and pronounced that ſhe ſhould not be brought to bed in any of the months of the year. Mercury, who was alſo in love with Rhea, likewiſe ſucceeded to gain her good graces. She communicated to him the embarraſſment in which ſhe found herſelf. In acknowledgment for the favours which he had obtained, Mercury undertook to defend that goddeſs from the effects of the malediction of the Sun. That quickneſs of mind by which he is ſo well known, ſupplied him with a very ſingular expedient to do it. One day that he played at dice with the Moon, he propoſed to play for the 72d part of each day of the year. Mercury won, and profiting by his gain, he compoſed five days, which he added to the twelve months of the year. It was during theſe five days that Rhea was brought to bed. She brought into the world Oſiris, Orus, Typhon, Iſis, and Nephthe[a].

I ſhall not endeavour to explain the myſtic ſenſe of this fable: I have only reported it to ſhew to what antiquity the Egyptians made the eſtabliſhment of their year of 365 days aſcend.

They muſt nevertheleſs have preſerved ſome tradition of that event, leſs altered than that which I have juſt ſpoke of. Syncellus attributes to a monarch named Aſeth, the reform of the ancient Egyptian calendar. Under that prince, ſays that author, the Egyptian year was regulated to 365 days, for till that time it only had 360 days[b]. This fact does not furniſh us with any great lights about the time in which this form of the year began to have place. We know very well, it is difficult to fix the reigns of the ancient ſovereigns of Egypt. Nevertheleſs, in collecting

[a] Plut. t. 2. p. 355. D. Diodorus ſeems alſo to have had ſome knowledge of this allegorical fable. See l. 1. p. 17.

[b] P. 123. D.

the

the different facts which hiſtory can furniſh, and by examining the form of the principal cycle which the Egyptians uſed, known by the name of the *canicular cycle*, we may determine the preciſe date of the inſtitution of the year of 365 days.

In the deſcription which Diodorus makes of the tomb of Oſymandes, King of great Thebes, he ſpeaks of a circle of gold whoſe circumference was 365 cubits, and one cubit in breadth. Each of the 365 cubits anſwered, ſays he, to a day of the year: they had marked there for each day, the riſing and ſetting of the ſtars, with the prognoſtic of the times, conformable to the ideas of the Egyptian aſtrologers [c]. Oſymandes is called Iſmandes by Strabo, who adds, that the prince called Iſmandes by the Egyptians, was the ſame as the Memnon [d] who is ſo often ſpoke of by the hiſtorians of antiquity, as ſovereign of Ethiopia. It is very probable, that Oſymandes, a very warlike prince [e], had conquered that kingdom *; an event, which may have thrown the ancients into an error. Whatever it be, we find this Memnon in ſome liſts of the kings of Egypt [f]. And we know moreover, that he was extremely revered under that name among the Egyptians. His reign falls about the time of the war of Troy. We may prove this as well from the authority of Homer, of Heſiod, of Pindar, and of Virgil, as by the teſtimony of the moſt ancient monuments, ſuch as the coffer of Cypſelides, the throne of the Amyclean Apollo, the ſtatues of Lycias, the pictures of Polygnotus, &c. [g]. Thus we have been before aſſured, that

[c] L. 1. p. 59. This circle was taken away by Cambyſes, when he made the conqueſt of Egypt. Diod. *ibid.*

[d] L. 17. p. 1167. [e] See Diod. l. 1. p. 57.

* Ancient inſcriptions, of which Tacitus ſpeaks, atteſt. that Rhampſes, King of Thebes, had conquered Ethiopia. Annal. l. 2. c. 60.

I ſhould think, that this prince might well be the Oſymandes of Diodorus. We know how much the Greek and Latin hiſtorians have disfigured the names of the Egyptians.

[f] Syncell. p. 72. & 151.

[g] Odyſſ. l. 4. v. 188. l. 11. v. 521.; Heſiod. Theogon. v. 984.; Pind. Olymp. 2. v. 148.; Pyth. 6. v. 30.; Virgil. Æneid. l. 1. v. 489.; Pauſ. l. 5. c. 19. & 22. l. 10. c. 31. l. 3. c. 3.

at

at the time of the war of Troy, the ſolar year of the Egyptians was of 365 days, and by conſequence that the reign of Aſeth muſt have preceded that epoch. But the examen of the cycle that the Egyptians called the canicular cycle, will furniſh us with a much more preciſe date.

The ancients ſpeak very often of the *great year* of the Egyptians nominated by ſome authors *the year of God.* Cenſorinus and many other writers inform us, that this year of God, which ſome authors alſo call *the heliac year*, commenced every 1461 years. It was nothing elſe but a canicular cycle*. We ſee very plainly, that they only ſpoke of the duration of this cycle in the number of 1461 years, ſo ill applied by Tacitus for the duration of the life of Phœnix, by Dio to the Roman calendar, and by Firmicus to the general revolution of the planets.

This being granted, we find from the year 1322 before Chriſt to the year 139 of the Chriſtian æra, a canicular cycle well atteſted by the authorities and by the calculations of a number of authors. There is not then any thing farther to be done at preſent; but to ſee if the eſtabliſhment of the year of 365 days agrees with the commencement of the cycle. For it is evident, that in the times which the Egyptians give for the firſt time of 365 days for their year, Thoth was canicular, and one of the characters of that firſt year ought to have commenced with the riſing of the canicular. This is a fact of which we may acquire ſufficient proofs, by collecting what is ſaid by the ancients of the manner in which the Egyptians regulated their years by the riſing of the

* The firſt month of the Egyptian year was called *Thoth*. When the heliac riſing of the canicule fell on the firſt day of the month, they ſaid that Thoth was canicular, and they comprehended under the name of canicular cycle, the time which elapſed from one canicular Thoth to the ſucceeding one. That interval was neceſſarily 1460 Julian years. For the Egyptian year of 365 days being too ſhort by about ſix hours, the riſing of the canicule would anticipate a day every four years, and running retrograde all the days of thoſe years one after another during four times 365 years, or 1460 years. Thus it was only after 1461 Egyptian years, equivalent to 1460 Julian years, that the heliac riſing of the canicule would return to the firſt day of the month Thoth, and would commence a new canicular cycle.

Dog-

Dog-ſtar *. I think then we may fix the inſtitution of the year of 365 days to the year 1322 before Chriſt †.

The manner in which the Egyptians placed their five intercalary days, was very different from that which we follow at preſent. They had not diſtributed thoſe days in the courſe of a year. Thus, inſtead of having as we have equal and unequal months, theirs were all of 30 days each. At the end of the twelve months they placed their five intercalary days following each other, between the laſt month of the finiſhing year and the beginning of the following ‡.

By means of this correction, the Egyptians approached very near the exact determination of the ſolar year. They had found it very near to a quarter of a day. Their aſtronomers at laſt came even to diſcover that the year preciſely of 365 days was too ſhort by ſome hours of the ſolar natural year. But I doubt if they had attained to this point of preciſion in the ages we are now running over.

We only go ſtep by ſtep in the diſcovery of truth. The Egyptians began by perceiving the diſproportion there was between the ſolar year and the lunar year, which had originally ſerved them for a rule, as well as all the firſt people. They at firſt determined this exceſs to ſix days. Having afterwards found out that this number was not ſufficient, they then added five days to their year. But it was not for ſome time after the epoch of which we are ſpeaking in this ſecond part, that they came to know preciſely how much the duration of the ſolar year exceeded that of the lunar. Their

* Theſe people had a particular attention to the riſing of the canicule, whoſe appearance announced the overflowing of the Nile; an attention which was one of the principal cauſes of the progreſs which they made in aſtronomy.

† I refer for the proof of all that I have juſt advanced about the epoch of the inſtitution of the year of 365 days in Egypt, to the hiſtory of the Egyptian calendar, given by M. de la Nauze, in les memoires de l' academie des inſcriptions, l. 14. M. p. 334.

‡ The Mexicans uſe them in the ſame manner; they place their five intercalary days at the end of the year. During theſe five days, which they think have been expreſsly left out by their anceſtors, as void and without being reckoned, they abandon themſelves totally to idleneſs, and only think of loſing, in the moſt agreeable way poſſible, theſe days which they look upon as ſuperfluous. Hiſt. de la conquête du Mexique, l. 3. c. 17. p. 554.

obſervations,

obſervations, for the ages we now ſpeak of, had not acquired ſufficient juſtneſs to give the exact meaſure of the annual revolution of the ſun from weſt to eaſt. The Egyptian aſtronomers had not then diſcovered that that ſtar takes up more than ſix hours beſides the 365 days, to return to the ſame point of the heavens from whence it went. This fact is not difficult to prove. It ſuffices to recall what I have ſaid above of the circle of gold placed over the tomb of Oſymandes. That circle, as we have ſeen, was divided into 365 cubits, each of which anſwered to a day of the year. Yet the natural year including about the fourth of a day more, it follows, that a circle thus divided into 365 equal parts could not give an exact calendar. For there is no point mentioned where they could have the part reſerved for the fourth part of a day, which the true year requires beſides the 365 days. Moreover, we do not ſee that this ſort of calendar was accompanied with any rules which could correct the defect. It is for this reaſon, I think, the Egyptians had not diſcovered the true duration of the ſolar year till ages poſterior to thoſe which at preſent engage us [h].

ARTICLE III.

Of geometry, mechanics, and geography.

I Shall not enlarge much about the progreſs of the Egyptians in the other parts of the mathematics of which I have to ſpeak. I have ſhewn in the preceding books, that ſurveying muſt have been known very anciently among thoſe people [i]. The tributes which Seſoſtris impoſed upon all the lands of his kingdom, and the manner in which he ordered they ſhould be gathered, muſt have contributed to the advancement of geometry in Egypt. The taxes were proportioned to the quantity of land each inhabitant poſſeſſed. They had even regard to the diminutions and to the

[h] It is alſo the ſentiment of Marſham. See p. 237.
[i] Part 1. book 3. chap. 2. art. 3.

alterations which the Nile might cauſe each year to the lands over which it extended [k]. Such an eſtabliſhment muſt, without contradiction, perfect the firſt practices of geometry, and by a neceſſary conſequence occaſion new diſcoveries. Moreover, we cannot determine to what degree that ſcience had then been carried in Egypt.

Of all the parts of mathematics, mechanics is that which the Egyptians appear to have known beſt in the times we are about; indeed there does not remain to us any preciſe teſtimony about the diſcoveries of theſe people in mechanics: hiſtory does not furniſh us in that reſpect with any lights. But as it is certain that the Egyptians had cultivated geometry in the firſt times, and that it is by the application of the theories of that ſcience to the different queſtions which concern motion and the equilibrium, in which conſiſt mechanics properly ſo called; there is great room to preſume that theſe people corrected readily their firſt practices, and rectified and ſubjected them to ſome fixed and conſtant methods. It would be difficult enough in reality to conceive, that without any other guide but a blind practice, and deſtitute of principles, the Egyptians could have elevated on their baſis ſuch maſſes as the obeliſks [l].

It may be aſked, what machines the Egyptians uſed for ſuch works? Were they like ours? Laſtly, did they execute theſe grand enterpriſes with leſs apparel than the celebrated Fontana uſed when he ſet up again the ſame obeliſks by the order of Sixtus V.? That is what we know not how to decide. We only ſee that the Egyptians took very extraordinary precautions and meaſures, to execute ſuch like undertakings [m].

Geography alſo received great increaſe amongſt the Egyptians in the ages which we are now employed about. The

[k] See Herod. l. 2. n. 109.

[l] See ſupra, book 2. chap. 3. p. 132.

Yet we muſt ſay that Zabaglia, who had lately drawn from the earth an obeliſk, was abſolutely ignorant of mathematics, and only worked from genius and practice. See Trev. Mai, 1751. p. 1202.; Acad. des inſcript. t. 23. mem. p. 370.

[m] See ſupra, book 2. chap. 3. p. 132.

vaſt

vaſt conqueſts of Seſoſtris contributed greatly to the progreſs of that ſcience. That monarch applied himſelf to have a map made of all the countries which he had gone over. He did not content himſelf with having enriched Egypt with his geographical productions; he had ſtill a further care to make them diſperſe copies even into Scythia, from a deſire to make his name go into the moſt diſtant climates [n].

The memory of theſe maps of Seſoſtris was perfectly well preſerved in antiquity. In the poem compoſed by Apollonius Rhodian on the expedition of the Argonauts, Phineas King of Colchis predicted to thoſe heroes the events which ſhould accompany their return. Argus, one of the Argonauts, explained that prediction to his companions, told them that the route which they muſt keep was deſcribed on tables, or rather on columns which an Egyptian conqueror had before left in the city of Oea, capital of Colchis. He adds, that the whole extent of the roads, the limits of the earth and the ſea were marked on theſe columns for the uſe of travellers [o]. The ſcholiaſt of Apollonius calls the Egyptian monarch Seſonchoſis, of whom mention is made in this paſſage: but he obſerves that many authors alſo called him Seſoſtris [p]. We know moreover, that this prince had conquered Colchis, and that he had even left there a colony [q].

For the reſt we ought not to be ſurpriſed that geography made ſo great a progreſs in Egypt. At all times the learned of that nation had made it a particular ſtudy. That ſcience was one of thoſe to which the prieſts particularly applied themſelves [r].

I could yet ſpeak more largely about the geographical knowledge of which we find ſo many proofs in the writings of Moſes. I have already ſpoken of it in the firſt part of this work [s]. The diviſion of the land of promiſe begun by Moſes, and finiſhed under Joſhua, gives a very perfect teſtimony of the progreſs which geography had made at that

[n] Euſt. in *fine* epiſt. *ante* Dionyſ. Perieg.
[o] L. 4. v. 272. &c. [p] Ibid. *ad* verſ. 272.
[q] Herod. l. 2. n. 103. & 104. [r] Clem. Alex. ſtrom. l. 6. p. 757.
[s] Book 3. chap. 2. p. 258.

time [t]. We cannot help being ſtruck when we read in the Bible the circumſtances and the detail of that diviſion. That fact alone will ſuffice to convince us of the antiquity and aſſiduity with which certain people had applied to geography. The degree to which we ſhall ſee that this ſcience was carried in the time of Homer, will be ſufficient to give us a complete proof of it. I ſhall give an account of it in the third part.

In treating of the article of ſciences among the Egyptians, we muſt not forget one circumſtance which does honour to theſe people. It was among them that we find the example of the moſt ancient library ſpoken of in hiſtory. Among the number of buildings with which the ſuperb tomb of Oſymandes was accompanied, there was one which contained the ſacred library [u]. One read above it this inſcription, *The remedies of the ſoul* [x].

CHAP. III.

Of Greece.

THere is ſcarce any nation which has not pretended to have invented the arts and the ſciences. I have ſhewn in the firſt part of this work, to what degree this pretenſion might be depended upon. It is certain, that each people has had notions about the firſt practices which have given birth to arts and ſciences. But it is equally true that theſe firſt notions were readily perfected in certain countries, while in others the people remained a long time confined to thoſe groſs practices which we ought not to honour with the name of ſciences; perhaps even theſe nations would never have attained to more elevated theories, if they had not been inſtructed by colonies which came from countries more en-

[t] Deut. chap. 3. v. 12.; Joſ. chap. 13. & chap. 18.
[u] Diod. l. 1. p. 58. See what I have ſaid of this monarch, book 3. chap. 2. art. 2. p. 255.
[x] Diod. *loco cit.*

lightened.

It is in this ſenſe that we ſhould regard the firſt [redacted] of Aſia and of Egypt, as the maſters who have [redacted]e nations of Europe the greateſt part of the arts and ſciences which we now enjoy. The ſciences had already made a pretty great progreſs in the eaſt at the time when the Greeks ſcarce knew the firſt elements.

Greece had produced formerly many famous perſonages to whom certain writers of that nation would give the honour of the invention of arts and ſciences. But the beſt Greek authors have paid no regard to theſe popular traditions. They have been the firſt to ridicule them, and to acknowledge that it was from Egypt and Aſia that Greece had all its knowledge. The traditions of which I ſpeak attribute, for example, the invention of arithmetic to Palamedes[y]. Plato with reaſon takes away the abſurdity of ſuch an opinion. "What then," ſays he, "without Palamedes, Agamemnon "would have been ignorant of the number of his fingers[z]?" We muſt form the ſame judgment of the other diſcoveries of which the common people among the Greeks make the great men of the heroic ages paſs for the authors. We know in what time theſe boaſted perſonages lived, and theſe times are greatly poſterior to the coming of the firſt colonies from Aſia and from Egypt into Greece. This is ſufficient to demonſtrate the forgery of the facts with which certain writers would embelliſh the hiſtory of the ancient heroes of Greece. We can only ſay in their honour, that having perfected the firſt knowledge that Greece had originally received from the eaſt, they merited in ſome ſort to be looked upon as the inventors.

Without ſpeaking of the Titan princes, of Inachus and Ogyges, we ſhould regard Cecrops, Danaus, and Cadmus, as the authors of the greateſt part of the knowledge which, in ſucceeding times, has diſtinguiſhed ſo advantageouſly the Greeks from other people of Europe. Theſe firſt tinctures, it is true, muſt have been imperfect enough. The ſciences, at the time of the tranſmigrations of which I ſpeak, had not

[y] See Plato de rep. p. 697. [z] Loco ſupra cit.

yet

yet acquired in Aſia and in Egypt the degree of [redacted] which they came afterwards in thoſe climates. [redacted] moreover, could not communicate to a nation amo[redacted] they were going to ſettle, all the diſcoveries which the country enjoyed from whence they came. Even what they brought, would only thrive by length of time. Thus we ſee, that, for many ages, the ſciences only languiſhed among the Greeks. It was neceſſary to bring them out of that ſtate of infancy, that men of a ſuperior genius, perceiving what their nation wanted, ſhould aſcend, if I may ſo ſay, to the ſource which had given to Greece its firſt inſtructions. They went to draw anew from Egypt and Aſia the lights of which they had need. By theſe voyages they enriched their country with new diſcoveries; and the diſciples ſoon ſurpaſſed their maſters. Theſe facts appertained to ages of which I have no occaſion to ſpeak. Let us confine ourſelves to our object. Let us examine the ſtate of ſciences among the Greeks in the times which actually fix our regard: theſe are them which are deſigned in antiquity by the name of the *heroic times*.

ARTICLE I.

Of Medicine.

IT is uſeleſs to obſerve, that originally among the Greeks, as well as among all the nations of antiquity the profeſſions of phyſician, of ſurgeon, and apothecary, were united in the ſame perſon. That part of medicine which was employed in curing internal diſtempers, was ſcarce known to them [a]. We ſcarce find any examples of cures of ſuch like diſtempers. Here is one nevertheleſs which merits on many accounts our attention. Fable has extremely diſfigured it; but it is not difficult to pick from it hiſtorical foundations. This fact may ſerve to make known in what

[a] See part 1. book 3. chap. 1.

manner

[illegible]y of the remedies had been found: it will also [illegible] to make some reflections about the recompenses [illegible] gave to the ancient physicians when they succeeded.

History says, that there had happened a most strange accident to the daughters of Prætus, King of Argos. They thought they were metamorphosed into cows [b]. Fable attributed this singular delirium to the wrath of Bacchus, or to that of Juno [c]; but it is easy to perceive it was the effect of a distemper of which the physicians report various examples [d]. Abas, who had possessed the throne of Argos before Prætus, had left by Idomenea his daughter, a grandson named Melampus [e]. This prince was given to a pastoral life, according to the usage of the early times, when the children of kings and of gods, that is to say, kings themselves, often kept their owns flocks. The profession of a shepherd gave an opportunity to Melampus of making some discoveries in physic. He passed in antiquity for the first of the Greeks who had found out purges [f]. Melampus had remarked, that when the goats had eat hellebore, they were violently purged; he thought of having the milk sent to the daughters of Prætus. Others say, that he gave them hellebore alone. It appears, that Melampus joined to that receipt some superstitious remedies [g]. He is the first that is said to have put in practice in Greece these pretended means [h]. However it was, Melampus succeeded in curing the daughters of Prætus of their madness.

The physicians of the heroic times did not undertake to cure the sick but for a good sum. The recompense which Melampus required is a proof of it. He demanded first the third part of the kingdom of Argos. The Argives, after some

[b] Virgil. eclog. 6. v. 48.; Servius *ad* hunc loc.
[c] Apollod. l. 2. p. 68.
[d] See P. Ægineta. l 3. *de* Atra-bile.; Le Clerc, hist de la medec. l. 1. p. 4.
[e] Apollod. l. 2. p. 68. & 69.
His father called him Amythaon. Melampus lived about 150 years before the Greek Æsculapius.
[f] Apollod. l. 2. p. 69.
[g] Apollod. ibid.; Ovid. Metam. l. 15. v. 325. & seq.; Servius ubi *supra*.
[h] Herod. l. 9. n. 49.

difficulties,

difficulties, having conſented to it, Melampus a[redacted] firſt demand, that of a third of the ſame kingd[redacted] brother Bias. Hiſtory ſays, that as all the Argi[redacted] mad, they were obliged to agree to all his pretenſions [i]. [redacted]t is true, that other hiſtorians relate the fact in a manner much more natural. They ſay it was the King of Argos, who, as an acknowledgment, divided his kingdom with Melampus and Bias his brother [k].

This is not, laſtly, the only example that antiquity gives us of ſuch like recompenſes granted to phyſicians. I ſhall very ſoon have occaſion to relate another. Nevertheleſs, we ſhall ceaſe to be aſtoniſhed at it, when we ſhall have reflected that theſe phyſicians were the ſons or grandſons of ſovereigns.

We alſo find another example of cures attributed by antiquity to Melampus. But fable has ſo diſguiſed the fact, and the circumſtances agree ſo little with chronology, that I have not thought proper to relate it [l].

All that I could collect about the curing internal diſtempers in the ages of which we now ſpeak, is nearly reduced to this. I have already had occaſion to remark, that formerly this part of medicine was almoſt entirely unknown. The ſcience of the firſt phyſicians only conſiſted in the practice of ſurgery [m]. The ancients have very well obſerved, that although they had phyſicians in the Greek army before Troy, Homer does not ſay, that they were employed in the plague with which the camp was afflicted, or any other ſort of diſtemper. They were only called to heal the wounded [n]. Our reflections then ought only to fall upon the manner in which, in the heroic times, the Greeks treated wounds. Homer will give us ſome examples.

[i] Herod. l. 9. n. 33.; Apollod l. 2. p. 69.
Servius ſays only that Melampus made it in his bargain, that they ſhould give him in marriage one of the daughters of Praetus, called Lyrianaſſa, with half of the kingdom. *Ad* eclog. 6. v. 48.

[k] Diod. l. 4. p. 313.; Pauſ. l. 2. c. 17.

[l] See Le Clerc hiſt. de la medec. l. 1. p. 26. & 27.

[m] See Apollod. l. 3. p. 172.; Plin. l. 29. c. 1. *init.*; Hygin. fab. 274. p. 328.; Celſ. l. 1. *in* praefat.

[n] Celſ. *loco cit.*

In

[redacted]ad Menelaus is wounded with an arrow in the [redacted]make Machaon immediately come to heal him. [redacted] Æsculapius, after having considered the wound, [redacted] blood, and puts on it a dressing to appease the pain [o]. Homer does not specify what entered into that dressing *. It was only composed, according to all appearances, of some bitter roots. This conjecture is founded on this, that in the description which the poet gives of the healing of such a wound, he says expressly, that they applied to the wound, the juice of a bitter root bruised [p]. It appears, that this was the only remedy which they then knew. The virtue of these plants is to be styptic. They use them for hindering suppuration, and by that means to procure a reunion of the wounds more readily. These bitter roots had the same effect as brandy and other spirituous liquors, of which they make use at this time. But these sort of remedies must have caused much pain to the wounded, by the irritations and inflammations which they could not fail of occasioning †.

I had forgot to say, that their first care at that time, was to wash the wounds with warm water [q]. We see also, that after that they knew and practised the suction [r].

[o] L. 4. v. 218. & 219.

* Plato, repub. l. 3. p. 623. has cited this wound of Menelaus for an example of the manner in which they cured wounds in the heroic times; but as he makes use of the expressions of Homer, he can give us no insight into the nature of the remedies that Homer means.

[p] Ῥίζαν πικρὴν. Iliad. l. 11. v. 845. 846.

† This is what makes me think, that we must not take literally the epithets which Homer gives to these sort of remedies. He calls them ἤπια, ὀδυνήφατα φάρμακα, *soft* remedies, *alleviating*. I think, that by these terms the poet would only say, that these remedies alleviated the pain, by procuring the healing of the wounds. See Iliad. l. 5. v. 401.

[q] Iliad. l. 11. v. 845. l. 14. v. 6. & seq.

[r] Ibid. l. 4. v. 218.

It must be agreed, that the word ἐκμυζήσας, which Homer uses on this occasion, is susceptible of two interpretations; for it may also signify simply *to wipe the wound after having pressed it*. This is the sense which Le Clerc has followed. Hist. de la médecine. l. 1. p. 49. & 50.

But besides that many interpreters have thought, that on this occasion Homer had intended to mean *suction*, I am determined by the authority of Eustathius, who takes it in this sense. He even adds, that in his time, among the most barbarous nations, they practised this remedy which would succeed commonly.

We muſt alſo obſerve, that all the offenſive [redacted] they uſed in the heroic times were of braſs [t]. T[redacted] to think, that wounds made with ſuch arms, w[redacted] difficult to cure as wounds made with arms of iron [u]. In as much as the ruſt of copper taken internally, is pernicious and mortal, by ſo much is it uſeful when employed externally. Verdigreaſe deterges and dries the ulcers; it conſumes the fungus and ſuperfluous fleſh. They make alſo a very ſalutary uſe of vitriol to abate inflammations. There could reſult none but good effects from the copper remaining in the wounds. That metal has in itſelf a ſtyptic virtue. The filings of copper enter into the compoſition of many remedies which they uſe to prevent the corruption of the fleſh. Some authors even pretend, that a nail of braſs put into the fleſh of a dead animal will hinder it from corrupting [x]. Finally, the diſcovery of the property of copper for healing wounds is very ancient. All antiquity agrees to ſay, that Achilles had cured Telephus with the ruſt of his lance, of which the point was copper. This hero paſſes for the firſt who had found out the good effects of verdigreaſe in the treatment of wounds [y].

The notion, that, by the virtue of certain words, they could ſtop the blood and heal wounds, is a very ancient ſuperſtition. At this time men are not ſo infatuated with them. Theſe illegitimate means which a falſe religion had given birth to, and which credulity had maintained, were in uſe at all times and among all people [z]. Homer furniſhes us with very ſtriking proofs of the credit which the Greeks gave to theſe impoſtors. Ulyſſes relates, that having been dangerouſly wounded by a wild boar, the ſons of Autolycus bound up the wound, and ſtopped the blood by pronouncing certain words [a]. There is alſo great reaſon to think, that

[t] See *infra*, book 5. chap. 3.

[u] It is the ſentment of Ariſtotle, problem. 35. ſect. 1. p. 683. See alſo Plut. t. 2. p. 659.

[x] Plut. t. 2. p. 659.; Journ. des ſcavans, Juillet 1678. p. 159.

[y] Plin. l. 25. ſect. 19. p. 365.

[z] See Le Clerc. hiſt. de la med. part 1. l. 1. p. 35. & ſeq.

[a] Odyſſ. l. 19. v. 457.; Plin. l. 28. c. 2. p. 446.

there

much ſuperſtition in the wonderful knot, the inwhich they attributed to Hercules. The ancients that that knot had a very particular virtue for wounds [a].

The care of regulating the nouriſhment of the wounded is one of the principal objects of phyſic. It is of abſolute neceſſity and of very great conſequence, to preſcribe, on theſe occaſions to the ſick, rules for eating and drinking. We are always ſurpriſed at the regimen which Homer makes his wounded heroes obſerve. Machaon, ſon of Æſculapius, was himſelf a very able phyſician. He was a ſoldier as well as a phyſician. He was wounded dangerouſly in the ſhoulder in a ſally which the Trojans made. Neſtor immediately brought him back to his tent. Scarce are they entered there, but Machaon took a drink mixed with wine, in which they had put the ſcrapings of cheeſe and barley-flour [b]. What ill effects muſt not this mixture produce, ſince wine alone, in the opinion of perſons of ſkill, is very oppoſite to the healing of wounds? The meats which Machaon afterwards uſed, do not appear any way proper for the ſtate in which he found himſelf [c].

The conduct which Homer makes his heroes obſerve, is ſo extraordinary, that Plato could not help remarking it; but, at the ſame time, he endeavours to find, in the manner of living in the heroic times, reaſons for excuſing ſuch a regimen. Yet I doubt, if the motives on which Plato founds the defence of Homer, be as ſolid as they are ingenious [d]. It is

[a] Plin. l. 28. c. 6. p. 455.

[b] Iliad. l. 11. v. 506. 507. & 637. *&c.*

Mad. Dacier has tranſlated ἄλφιτα λευκά by *wheat flour*. But it is certain, that ἄλφιτον never ſignified but barley-flour. See Plat. repub. l. 2. p. 600. Beſides we know, that the mixed drink which Homer calls κυκεών, they made anciently with barley-flour. See the ſchol. of Euripid. *ad* Creſt. p. 209. edit. Steph.

[c] Iliad. l. 11. v. 629. [d] In Ione, p. 366.; repub. l. 3. p. 622. & 623. Plato had not Homer before him when he writ this part of his Republic. He confounds the perſonages, by ſaying, that it was Eurypilus who took the drink in queſtion. It was, according to Homer, Machaon himſelf. We do not ſee that Eurypilus, after he is wounded, is ſaid to have taken any thing. It is a ſmall inattention of Plato, into which M. Le Clerc has equally fallen. *Hiſt. de la med. l. 1. p. 42.*

better to attribute, with a very learned author [redacted] ters, this irregular conduct to their ignorance [redacted] principles of medicine. It is certain, that, in the [redacted] that part of this ſcience which concerns the dieting of the ſick was abſolutely unknown [e].

I have ſaid in the firſt part of this work, that, according to all appearances, they did not know to bleed anciently. That remedy does not ſeem to have been in uſe among the Egyptians. With reſpect to the Greeks, we do not find the leaſt trace of it in Homer; yet bleeding muſt have been known and practiſed in the heroic times, if we would refer to the teſtimony of Ætien of Byzantium. That geographer ſays, that Podalirus, brother of Machaon, returning from the war of Troy, was thrown by a tempeſt on the coaſt of Caria. The report being ſpread, that he was a phyſician, they brought him to King Damætus, whoſe daughter had fallen from the top of a houſe. They ſay, he cured her by bleeding her in both arms [f]. The King, in acknowledgment, gave him that princeſs in marriage with the Cherſoneſus. As we are ignorant from whence Ætien of Byzantium had taken this hiſtory, and that he is the only one who ſpeaks of it, there is great room to doubt of it; ſo much the more as this geographer is an evidence too modern with relation to times ſo remote as thoſe of which we ſpeak [*].

We have ſeen in the firſt part of this work, that, among the people of the eaſt, the care of labours had been originally intruſted to the women. It had not been the ſame with the Greeks in the firſt ages. It was expreſsly forbidden the women to exerciſe any parts of medicine, without even excepting that of delivering women. This prohibition had had very bad conſequences. The women could not reſolve to call men in theſe critical moments. For want of help many periſhed in their labours. The induſtry of a young Athenian woman who diſguiſed herſelf

[e] Le Clerc. *hiſt. de la med.* l. 1. p. 44.

[f] Stephan. *in voce* Συεννα, p. 625. & 626.

[*] Thom. de Pinedo conjectures, that Ætien of Byzantium writ between the 490th and 500th year of the Chriſtian æra. Fabricius thinks, that it might be more ancient by 100 years, *Bibl. Graec. l.* 3. *p.* 46.

like

like a man to learn phyſic, drew the women out of this ſcrape. They had remarked, that this pretended phyſician was the only one which the women uſed. This raiſed ſuſpicions. They carried her before the Areopagus to give an account of her conduct. Agnodicia (for that was the name of our young Athenian) had no trouble to draw the judges from their error. She explained the motive of her diſguiſe. This adventure was the cauſe of the abrogation of the ancient law. Since that time, the women have had permiſſion to preſide at labours [c].

The princes and kings at this time did not deſpiſe the practice of phyſic. Almoſt all the famous perſonages of the heroic ages, were diſtinguiſhed for their knowledge in that art. They reckon in this number Ariſtæus, Jaſon, Melampus, Teucer, Peleus, Achilles, Patroclus, &c. They had been inſtructed by the Centaur Chiron, whoſe ſkill and knowledge at that time had rendered him the oracle of Greece. They were particularly attached to the knowledge of ſimples. They deſign even now many plants by the name of ſome one of theſe heroes; a proof, that in antiquity they paſſed for the firſt who diſcovered the virtues of them [b].

We could join to theſe illuſtrious perſonages Palamedes. It is not that he had applied to know the ſecrets of medicine. He had refuſed to be inſtructed in that ſcience by Chiron. Palamedes was a fataliſt, and conſequently looked upon medicine as a knowledge odious to Jupiter and the fates. The example of Æſculapius being thunderſtruck, frightened him [i]. But as the penetration of his mind was equal to every thing, they ſay, he hindered, by his advice, the plague which ravaged all the cities of the Helleſpont, and even Troy, from attacking any perſon in the Grecian camp, although the place where the camp was ſituated was very unwholeſome. Palamedes, they add, had foreſeen this plague, becauſe the wolves deſcending from Mount Ida ruſhed upon the beaſts, and even upon the

[c] Hygin. fab. 274. p. 388. [b] See Le Clerc. hiſt. de la med. l. 1. p. 30.
[i] Philoſtrat. heroic. c. 10. p. 708.

men.

men. The means which he uſed for hindering the army of the Greeks from being attacked with the plague, was to order them to eat little, and particularly that they ſhould abſtain from fleſh. He injoined them alſo to uſe much exerciſe. They ſay, this advice had all the ſucceſs poſſible [k].

If this fact had been well proved, we might ſay, that, on the ſubject of medicine, Palamedes knew more than all the Greeks, without excepting Podalirius and Machaon. But all this fine ſtory does not deſerve the leaſt credit. I ſhould not have had occaſion to have ſpoke of it, if, falſe as it is, it had not ſerved to confirm what I have ſaid precedently about the diſcoveries which ſome Greek writers would give the honour of to their heroes. To deſtroy all theſe traditions, it ſuffices to open Homer, whoſe teſtimony ought to have ſo great a weight in every thing which concerns the heroic times. This poet ſays expreſsly, that the Greeks were a prey to the deadly arrows of Apollo. We ſee nothing every where, but heaps of dead upon the piles which burn without ceaſing [l].

I ſhall only ſpeak one word of Medea. That princeſs paſſed in antiquity for a very famous magician. She would not probably have had this bad reputation but for the knowledge ſhe had acquired in botany, and the criminal uſe ſhe too often made of it. They have ſeen her do ſurpriſing cures. They knew alſo, that by her ſecrets ſhe often got rid of thoſe who had drawn upon them her enmity; they needed no more to make her to be looked upon, in theſe times of ignorance, as a magician of the firſt order.

Among all the ſurpriſing things ſhe had done, there was none more celebrated than the making old Æſon young, the father of Jaſon her lover. Ovid has deſcribed this fable in a very elegant and pathetic manner [m]. Many mythologiſts have endeavoured to give a reaſonable meaning

[k] Philoſtrat. heroic. c. 10. p. 710. & 711.
[l] Iliad. l. 1. v. 51. & ſeq. [m] Metam. l. 7. v. 162. & ſeq.

to

to this abſurd tale. There are ſome who have thought that they had got a glimpſe of it from an experiment which they took a great deal of pains about at the end of the laſt age. I mean the transfuſion of blood, a remedy which they tried many times with ill ſucceſs [n]. Others ſearch for the origin of that fable in a tradition which imports, that Medea knew herbs, whoſe virtue was to make white hairs black [o]. But all theſe explications are not ſupported on any hiſtorical foundations [p].

ARTICLE II.

Of Mathematics.

THE Greeks, in the ages of which we at preſent ſpeak, had only very contracted notions of mathematics. What they knew in it does not merit the name of ſcience. We are always aſtoniſhed, when we compare the brilliant ages of that nation with its beginnings. Their genius has been far from being unfolded as readily as that of the people of the eaſt. Compare the Greeks of the heroic ages to the Phœnicians of the ſame ages, and we ſhall find almoſt as much difference between them as between the moſt policed people of Europe, and the nations of America the moment they were diſcovered. The Greeks even did not know to put in practice, till very lately, the knowledge which the Aſian and Egyptian colonies had imparted to them. However imperfect we ſuppoſe theſe firſt tinctures, the little uſe which the Greeks made of them for almoſt 1000 years will always be a great ſubject of aſtoniſhment.

[n] Bannier explic. des fables, t. 6. p. 459. & 460.

[o] Clem. Alexandrin. l. 1. p. 363. See le Clerc hiſt. de la medecine, l. 1. p. 65.

[p] Bannier, *loco cit.* p. 460.

§ I.

§. I.

Of Arithmetic.

IT is impoſſible to give even imperfect and vague notions of the ſtate and progreſs of arithmetic in Greece for the heroic ages. Antiquity does not furniſh us with any lights about the firſt methods that the Greeks had made uſe of to make their calculations. I ſhall content myſelf with propoſing ſome conjectures about the arithmetical ſymbols uſed anciently among theſe people.

The Greeks, like all the nations of antiquity, had no knowledge of figures properly ſo called, that is to ſay, characters ſolely deſtined to expreſs numbers. They made ſerve for this purpoſe the letters of their alphabet, divided and ranged in different manners. It appears, that at firſt they deſigned numbers by the initial letters *, to which they afterwards added the numeral letters †. The firſt being, if one may ſay ſo, only the abridgment of the names of number, they ought to have made uſe of them before they gave to the letters of the alphabet a value dependent, not only of the rank which they held, but even an arbitrary agreement, which is plain from the manner of expreſſing units, tens, hundreds, *&c.* This ſecond operation is much more complicated than the firſt. It could not be introduced, till they had received from the Phœnicians

* This method could not have had place in the caſe where the ſame initial letter agreed to many names of different numbers. It would be difficult, for example, to make uſe of *Epſilon*, for the numbers *ſix*, *ſeven*, *nine*, ἓξ, ἑπτά, ἐννέα, when it was neceſſary to expreſs them in one and the ſame calculation. They muſt neceſſarily, in that caſe, have had error and confuſion, to deſign thoſe numbers by the initial letter of their name. We are ignorant in what manner the Greeks in the firſt ages remedied this inconveniency. But the monuments which ſtill ſubſiſt, do not permit us to doubt of the great uſe they made, generally ſpeaking, of initial letters, of the names of numbers to expreſs their value in an abridged way.

† See les mem. de l'acad. des inſcript. t. 23. mem. p. 416. *&c.*

the

the *Epiſemons*, *Bau*, *Koppa*, and *Sampi* *, which appear to have come later into Greece than the greateſt part of the other characters.

In the times of Herodian, the firſt manner of reckoning ſtill exiſted in the laws of Solon, and on ancient columns [r]. It was perpetuated among the Athenians; but, as it had been inſenſibly abandoned by the other cities of Greece, from thence it comes, that the grammarians, ſuch as Terentius Scaurus, and Priſcian, never ſpeak of it but as a cuſtom particular to the Athenians [s].

It is clear, notwithſtanding, that, at the beginning, this cuſtom muſt have been common to all the people of Greece. We find proofs of it in ſome fragments of very ancient inſcriptions [t]. But we muſt agree at the ſame time, that the other method of reckoning, that is to ſay, by numeral letters, was introduced very early into many diſtricts of Greece [u].

I ſhould like to have been able to have ſpoken more ex-

* It is the name which the Greeks gave to three characters, which they added to the 24 letters of their alphabet, to extend and facilitate the practice of calculations. Theſe characters were formed thus ϛ, ϟ, ϡ, and repreſented the numbers 6, 90, & 900. The 24 letters of the alphabet, taken according to the order that they had given to them originally, marked the numbers 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 20, 30, 40, 50, 60, 70, 80, 100, 200, 300, 400, 500, 600, 700, & 800. The combination of the eight letters ι', κ', λ', μ', ν', ξ', ο', π', and of *Koppa* ϟ, with the firſt eight α', β', γ', δ', ε', ζ', η', θ', and with the epiſemon *Bau*, ϛ, ſerved to expreſs all the intermediate numbers between 10 & 20, between 20 & 30, and thus following to an hundred. Laſtly, the eight letters ρ', σ', τ', υ', φ', χ', ψ', ω', and the *Sampi* ϡ, combined together as well with the ſix preceding and the two firſt épiſemons, as with the combinations of the firſt eight augmented with *Bau*, and with the eight intermediate ones, augmented with *Koppa*, expreſs all the numbers which are between 100 & 200, between 200 & 300, &c. to 1000. All theſe characters, as well ſimple as compound, were accented at the top.

To expreſs all the numbers which are between 1000 & 1000000, they did not uſe new numerical ſymbols, they contented themſelves with only removing the accent to the inferior part of the character, which without that only meant units, tens, hundreds; this new poſition of the accent determined the character to repreſent units, tens, and hundreds of thouſands.

[r] See his treatiſe περὶ τῶν ἀριθμῶν.

[s] Terent. Scaurus de orth. p. 2258. edit. de Putſ.; Priſcus, de fig. num. p. 1345.; Acad. des inſcript. t. 23. mem. p. 417.

[t] See Acad. des inſcript. t. 23. mem. p. 416. & 417. [u] Ibid. *loco cit.*

tenſively of the origin and ſtate of arithmetic among the Greeks in theſe early ages. The ſilence of ancient authors has not permitted me. It would be difficult to ſupply it by conjectures, which beſides would neceſſarily have this defect, to be very uncertain and very arbitrary. Aſtronomy will furniſh us with more matter for our reſearches.

§ II.

Of Aſtronomy.

NOthing ſhews better the little diſpoſition the ancient Greeks had for the ſciences, than the ſtate of imperfection in which aſtronomy had languiſhed among them during ſo many ages. It is certain, that at the times of which we now ſpeak, and very long after them, their calendar was very imperfect. It was, without doubt, becauſe the Greeks did not give themſelves up to agriculture till pretty late, and that they had been a very long time without undertaking navigations of a great extent [x].

It appears nevertheleſs, that that nation had never wanted aſtronomers. The greateſt part of the famous perſonages of the heroic ages were ſaid to have applied themſelves to the ſtudy of the heavens. There is ſcarce one of them, to whom they have not attributed ſome aſtronomical diſcoveries [y]. If we would even believe Philoſtrates, Palamedes had been inſtructed enough in that ſcience to explain the cauſe of the eclipſes of the ſun [z]. I have already ſufficiently explained myſelf as to what we ſhould think of the pretended diſcoveries of theſe heroes; it would then be loſing of time to ſtop any longer about it.

There is great reaſon to think, that, in the beginning, the Greeks did not reckon their years but by the ſeaſons; and yet there was not, in that reſpect, a uniformity between

[x] See *ſupra*, book 2. chap. 1. p. 174. &c. et *infra* book 4. chap. 4.
[y] See Lucian. de aſtrol. t. 2. p. 364. & ſeq.; Achil. Tat. Iſag. *init.*
[z] Heroic. c. 10. p. 709.

the

the different people of Greece. The Arcadians, who paſſed for the firſt who had endeavoured to make themſelves a calendar, originally made the year of three months, and afterwards of four. The Argives and the Acarnanians gave ſix to theirs [a].

We cannot fix the age in which the Greeks came to accommodate in a reaſonable way the duration of their years to the courſe of the ſeaſons. Anciently their years were purely lunar [b]. The Greeks were not long of perceiving how irregular that manner of dividing the time was. In leſs than ſeventeen of theſe years, the order of nature was abſolutely reverſed; ſummer taking the place of winter, and winter that of ſummer. They were obliged to have a remedy for theſe inconveniencies. The Greeks invented ſucceſſively different periods, or cycles, to make the duration of their years concur with the periodical return of the ſeaſons; but they wanted the moſt eſſential ſciences, without which it was not poſſible to ſucceed in ſuch an enterpriſe. We have a ſtriking proof of this, even in the nature of theſe periods. The firſt was the *Dieteride*.

This period ſuppoſed that twenty-five lunar revolutions anſwered exactly to two ſolar revolutions. In conſequence of this falſe principle, the Greeks believed they had found the true means of bringing back again the different months of their year to the ſame ſeaſon, by intercalating a thirteenth month every other two years, in ſuch a way that the years were alternatively of twelve and of thirteen months [c]. They called that period *Dieteride* or *Trieteride*, that is to ſay, a period of two years, or a period of three years, becauſe that intercalation did not take place but each third year, after two years revolution [d].

[a] Plin. l. 7. c. 48. p. 403.; Cenſorin. c. 19.; Solin. c. 1. p. 4.; Plut. *in* Numa, p. 72. B.; Stob. eclog. phyſ. p. 21.; Auguſt. de civit. Dei, l. 15. c. 12. p. 129.; Macrob. Saturn. l. 1. c. 12. p. 242.

[b] Solin. c. 1. p. 4.; Suid *in* Ἐνιαυτὸς, t. 1. p. 747.; Macrob. Saturn. l. 1. c. 12. p. 242. c. 13. p. 251.

We ſhall afterwards ſee the proof of what we are going to report of their ancient periods, which neceſſarily ſuppoſe lunar years of 354 days.

[c] Cenſorin. c. 18. [d] Ibid.

The Greeks were not a long time without discovering the imperfections of that reform *. They imagined then to double the interval of the intercalation of the thirteenth month, and not to make that intercalation till four years had revolved, or, what is the same thing, at the beginning of each fifth year. It is from hence that that second period took the names of *Tetraeteride* and *Pentaeteride*, under which names it has been equally known [d]. Lastly, as the Tetraeteride was still more defective than the Dieteride †, the Greeks invented a third, which they called *Octaeteride*, or *Enneateride*, observing that this new cycle commenced every ninth year [e]. Authors are divided about the manner in which the intercalation was used in this third period. Some say, that they intercalated three months after eight years had revolved; others say, that the Greeks added every eighth year an intercalary month, and it was in this that their octaeterides consisted [f]. Macrobius pretends, that they had seven common years of 354 days each, and that the eighth year they intercalated the ninety days which eight solar years surpass eight lunar years [g].

I think that the *Enneateride* had place in Greece in the time of Cadmus. We see, in effect, that, under this prince, there was mention made of a *great year*, and that that *great year* was of eight years [h]. We are not ignorant that the ancients, by these *great years*, understood the periods invented to reform the duration of the ordinary years,

* The Dieteride exceeded the duration of two solar years about seven days. It of consequence occasioned 28 days, that is to say, near a month's error every eight years.

[d] Censorin. c. 18.

† It must have been 15 days, or 15 days and a half, that 99 lunar months wanted of four solar years. Thus the Tetraeteride made from thirty to thirty-one days of error every eight years, near three days more, of consequence, than the Dieteride. But the irregularity caused by that period, acted in a quite opposite order. The Dieteride kept back the return of each month, with relation to the season to which it should appertain, and the Tetraeteride on the contrary advanced it.

[e] Censor. c. 18. [f] Newton's chronology of the Greeks, p. 78. & 79.

[g] Saturn. l. 1. c. 13. p. 251.; see also Suidas, *in* Ἐνιαυτὸς, t. 1. p. 747.

[h] Apollod. l. 3. p. 137.

and

and to bring them back to the order of the ſeaſons and the revolution of the ſtars. I ſtill think we have a glimpſe of the traces of this period in the manner in which the ancients ſay that Minos publiſhed his laws [i]. The uſing of all theſe different cycles proves plainly the ignorance and incapacity of the Greeks in aſtronomy at this time.

In courſe of time, they applied themſelves to find out means more proper to regulate with exactneſs the duration of their years. The ancient annals of Greece attribute theſe firſt reſearches to an anſwer of the oracle of Delphos. The oracle having ſaid, that they muſt celebrate the ſolemn feaſts not only according to the uſage of their country, but further, that they ought to obſerve there *three things* *, the Greeks thought that by theſe *three things*, the oracle had ordered them to have regard to days, to months, and to years; they imagined, that, for this effect, they ought to regulate the years by the courſe of the ſun, and the months by that of the moon [k].

The authors from whom we have this fact, do not tell us the time in which they applied themſelves to conform to the orders of the oracle; but it is certain, that there paſſed many ages before the Greeks were inſtructed in the means proper to conduct them to the end which they propoſed to themſelves.

According to the teſtimony even of the moſt eſteemed of their writers, theſe people before the reign of Atreus had not yet given attention to the proper motion of the ſun from weſt to eaſt. They ſay this prince was the firſt who inſtructed the Greeks in it [l]. We are not ignorant that the reign of Atreus only preceded the war of Troy ſixteen years. Philoſtrates, at the ſame time that he will do honour to the exalted knowledge of Palamedes, is forced to confeſs that then they had neither rules nor meaſures for the

[i] See Marsh. p. 613.

* Κατὰ τ

[k] Gemin. apud Petav. Uranol. c. 6. p. 32.

[l] Strabo, l. 1. p. 43.; Lucian. de aſtrol. t. 2. p. 365. & 366.; Achil. Tat. Iſag. p. 140.

months

months and for the years [m]. It muſt then be looked upon as certain, that all the practices which the Greeks uſed in the heroic times, were very imperfect.

Some moderns nevertheleſs have imagined, that the enterpriſe of the Argonauts had cauſed a great progreſs to be made in aſtronomy in Greece. They ſay the hazards of a long and dangerous navigation on ſeas unknown, forced the Greeks to apply with great attention to know the ſtate of the heavens. There have been ſome who have even advanced, that, at the time of the expedition of the Argonauts, they had charged the famous Centaur Chiron with the reform of the ancient calendar of Greece which wanted exactneſs. Chiron, continue they, made a new calendar for the uſe of the Argonauts two years before their expedition. He formed even conſtellations in order to facilitate the voyage of theſe heroes. They have done more: they would aſſign in what points of the heavens Chiron had fixed the points of the equinoxes and of the ſolſtices [n].

An opinion ſo contrary to all that ancient hiſtory teaches us of the little knowledge the Greeks had of aſtronomy in the heroic times, has not failed to be advanced. We have demonſtrated the falſity of it in a manner plain enough for its not being neceſſary to be inſiſted on anew. Yet, to the end that nothing may be omitted about a matter ſo intereſting, I ſhall ſhew in few words the means by which they have combated a ſyſtem ſo oppoſite to hiſtory and to reaſon. I ſhall only abridge what has already been ſaid by two celebrated and well-known authors [o], by adding only ſome reflections to their reaſonings.

To the preſent time they had only regarded Chiron as a Theſſalian very well verſed in botany. In this reſpect they were conformable to the unanimous teſtimony of all antiquity. They had never ſpoke of Chiron but as a phy-

[m] Heroic. c. 10. p. 709.

[n] Newton, chron. of the Greeks, p. 85. 87.-89. & ſeq.

[o] Le P. Hardouin, diſſert. ſur la chron. de M. Newton. It is inſerted in the memoirs of Trevoux, Septem, 1729, art. 87.; Bannier, explicat. des fables, t. 6. p. 342. & ſeq.

ſician

ſician who knew better than all his cotemporaries the uſe of plants, eſpecially of thoſe which ſerve for the curing of wounds. But further: it is known that Jaſon was brought up by Chiron [p]. The Centaur, ſay the ancients, imparted to his diſciples all his knowledge, and particularly that of medicine. They even add, that Chiron gave from this motive the name of Jaſon to that hero, inſtead of that of Diomede which he bore before [q]. We do not ſee that in theſe ancient traditions there is any mention made of aſtronomy. On what authority then is it that a modern author is ſupported to make Chiron an aſtronomer capable of making a calendar, and to fix the true ſtate of the heavens, eſpecially in the ages he mentions? They ſupport themſelves from a fragment of an unknown poet mentioned by Clemens Alexandrinus [r]. But further, what ſays this paſſage which makes the only baſis of the ſyſtem which we attack? Here it is, tranſlated literally, that we may judge if ſuch an authority is capable of deſtroying the unanimous ſuffrage of antiquity. "Hermippus of Beryte gives the "name of Sage to Chiron the Centaur; and he who has "written the Titanomachy reports, that he had firſt learned "the human race to live according to juſtice, by ſhewing "them the force of an oath, the joyful ſacrifices, or thankſ-"givings, and the figures of the heavens [s]."

Without ſpeaking of the whimſical aſſortment of theſe three ſorts of knowledge, without being willing to examine the authority of an unknown poet, and of whom the ancients have tranſmitted ſcarce any thing to us, could even what he has ſaid make us conclude, that Chiron had been learned enough in aſtronomy to range all the ſtars under their different conſtellations? Do we ſee in the paſſage in queſtion, that the Centaur had reformed the calendar in favour of the

[p] The ſcholiaſt of Pindar brings to prove it two verſes of Heſiod. Nemea 3. ad verſ. 92.

[q] Id. Pyth. 4. *ad* verſ. 211.

This is what the ſcholiaſt of Apollonius ſays alſo, l. 1. v. 554.

[r] Strom. l. 1. p. 360. & 361.

[s] Σχήματα ἀστέρων. Clem. Alex. *loco cit.*

Argonauts,

Argonauts, and laſtly, that he had fixed the four points of the ſolſtices and the equinoxes in the middle, that it to ſay, in the fifteenth degree of Cancer and of Capricorn, of the Ram and Libra?

What we can conclude, as appears to me, moſt naturally from this paſſage, is, that Chiron joined to the knowledge of botany, that ſort of aſtronomy which concerns the heliacal ſetting and riſing of ſome conſtellations, ſuch as the Hyades, the Pleiades, and Orion, whoſe appearances furniſh prognoſtics about the wind, the tempeſts, the rains, and other accidents hurtful to agriculture. He might know alſo, that the obſervation of the ſtars near the pole is uſeful in navigation. Perhaps he might have given ſome inſtructions to the Greeks about theſe objects. It was this point, without doubt, to which the celeſtial knowledge of Chiron was reduced. The ſtate in which aſtronomy then was in Greece, does not permit us to doubt of it. Theſe ſciences, moreover, were limited enough, and did not put the perſon who poſſeſſed them, in a ſtate of executing all that they would give the honour of to Chiron *.

We muſt beſides have paid very little attention to the manner in which the Greeks ſailed in the heroic times, to imagine, that the Argonauts had need of a calendar to mark exactly the riſing, the ſetting, and the poſition of the ſtars. The Greeks then only cruiſed about, that is to ſay, ſailed along the coaſts. It was not neceſſary in the enterpriſe of the Argonauts to bear off to the open ſeas; their object was to make the paſſage from Theſſaly to Colchis. Of what uſe then would the pretended calendar of Chiron have been to them? Shall we ſuppoſe, that theſe adventurers knew how to take the height of the ſtars, to know the place in which they were? What I ſhall ſay in the following

* What Clemens Alexandrinus adds, of Hyppo, daughter of Chiron, whom Ovid, by the by, calls *Ocyroe*, confirms the explication which I have juſt given of the aſtronomical knowledge of Chiron. Hyppo, daughter of the Centaur, ſays Clement, having eſpouſed Æolus, the ſame Ulyſſes came to ſhew to her huſband the ſcience of her father, that is to ſay, the contemplation of nature. Euripides, adds he, ſays of this Hyppo, that ſhe knew and predicted divine things by the oracles and by the riſing of the ſtars. *Strom. l. 1. p. 361.*

lowing book, about the manœuvre of the Greeks in the heroic ages, will ſhew us how incapable they were of ſuch an operation. We ſhall there ſee, that even in the times of Homer, that is to ſay, more than 300 years after the epoch which we are actually ſpeaking of, the Urſa Major was the only guide which their pilots knew [t].

Theſe are, I think, proofs more than ſufficient to deſtroy all the imaginations which they have propagated about the calendar made by Chiron. If it was neceſſary to add to this ſome reflections, the writings of Homer and Heſiod alone would furniſh us with enow to overturn the ſyſtem which we attack. Homer, who in his poems has had ſo many occaſions to ſpeak of the ſtars, and who in effect ſpeaks of them very often, yet only names ſix conſtellations, *Urſa Major*, *Orion*, *Charles's Wain*, *the Hyades*, *the Pleiades*, *and the Great Dog*. It is a ſtrong preſumption, that, even in his time, the Greeks knew no more. In the deſcription which he makes of the ſhield of Achilles, where he ſays, that Vulcan, among other ſubjects, had repreſented all the conſtellations with which heaven is crowned [u], we do not ſee, that he places there a greater number.

If from Homer we paſs to Heſiod, we ſhall ſee, that the number of the conſtellations known to the Greeks were not augmented in his time. This poet only mentions thoſe which were ſpoken of by Homer. For Sirius and Arcturus [x], of which the names are found in his writings, and of which we ſee no trace in thoſe of Homer, are only two particular ſtars, which make a part, one of the Great Dog, and the other of Charles's Wain, Anacreon, although greatly poſterior to Homer and Heſiod, only names one conſtellation more than theſe two poets *. Laſtly, if we were to examine

[t] Book 4. chap. 4.

[u] Ἐν δὲ τὰ τείρεα πάντα τά τ' οὐρανὸς ἐστεφάνωται. Iliad. l. 18. v. 485.

[x] Opera, v. 609. & 610.

The name Σείριος given to the Great Dog, and that of Ἀρκτοῦρος, given to Charles's Wain, make one ſuſpect, that Heſiod is not quite as ancient as Homer.

* It is the Little Bear. We ſee, that it was known in his time, becauſe he uſes the plural ἅμαξαι inſtead of the ſingular ἅμαξα, which Homer and Heſiod always uſe.

It was Thales, as I ſhall ſhew in the third part, who learned the Greeks to know the Little Bear.

all the ancient Greek authors who have had occaſion to ſpeak of the conſtellations, we ſhall ſee, that they knew no others but the two Bears, Orion, Charles's Wain, and the Pleiades.

With regard to the zodiac, there is no mention made of it in any writers of antiquity. We do not find that term uſed but in authors much younger *. We ſhould not be ſurpriſed at this. It is certain, that, before Thales, the Greeks had no idea of aſtronomy conſidered as a ſcience [y]. If we refer to Pliny, Anaximander had been the firſt who had made known to them the obliquity of the ecliptic [z]; a diſcovery which I think notwithſtanding ought to be referred to Thales [a]. Pliny likewiſe tells us, that Cleoſtrates had been the firſt among the Greeks who was ſaid to have made known the different ſigns which compoſe the circle of the ſphere [b]; and from the manner in which Pliny expreſſes himſelf, we ſee, that he was only a little time after Anaximander [c].

It appears to me then demonſtrated, that in the ages which at preſent make our object, and even a long time after, the Greeks knew only ſuch of the conſtellations whoſe obſervation is moſt neceſſary for agriculture. It had only been ſucceſſively and by length of time, that they came to know and deſign the greateſt part of the conſtellations, of which they would make us believe the pretended planiſphere of Chiron was compoſed. We ſhall have occaſion to convince them ſtill more of this by the expoſure which I ſhall make in the following volume of the ſtate in which aſtronomy then was in Greece.

* It is neither in Plato nor in Ariſtotle. And we find no more of it in the poem of the ſphere which remains to us under the name of Empedocles. *Apud* Fabric. Bibl. Græc. t. 1. p. 477.

It is true, that in the treatiſe *de mundo*, inſerted among the works of Ariſtotle, we ſee the word Ζώδια uſed to deſign the twelve ſigns; but all the critics agree at this time, that that treatiſe is not Ariſtotle's.

Aratus is the moſt ancient author who has deſigned the zodiac by the term Ζώδιος Κυκλος. Aratus lived about the year 270 before Chriſt.

[y] This is what we ſhall prove in the 3d part. [z] L. 2. ſect. 6.

[a] See what is ſaid on this ſubject, part 3.

[b] Plin. l. 2. ſect. 6. [c] Ibid.

Beſides

Beſides the names by which the Greeks have deſigned the conſtellations, it would ſuffice alone, in my opinion, to prove, that far from having been invented before the expedition of the Argonauts, they muſt be on the contrary poſterior to that epoch. By the confeſſion of the partiſans of the ſyſtem which we now attack, the greateſt part of theſe names have a direct relation to that expedition [a]; in this point we are perfectly agreed. We only differ in this, that they ſuppoſe that the Greeks had formed their conſtellations before the voyage of the Argonauts. We pretend on the contrary, that they could only be ſince that event; and we prove it by the names of many of the conſtellations; ſuch as that of the Dragon who guarded the golden fleece, of Medea's cup, of Caſtor and Pollux, and of Chiron himſelf. Theſe names neceſſarily ſuppoſe the expedition of the Argonauts become already famous by its ſucceſs.

With reſpect to the ſhip Argo, one of the principal conſtellations of the Greek planiſphere, there is no appearance that it had been formed in Greece. They can only perceive one part of the ſtars which compoſed it. I ſhall be eaſily enough brought to believe that that conſtellation was the work of Greek aſtronomers eſtabliſhed at Alexandria under the Ptolomeys. The name of *Canopus*, given to the moſt brilliant ſtar of that conſtellation, appears to ſhew it poſitively enough. No one is ignorant that that word is purely Egyptian. It was the name of a god much celebrated and highly revered in Egypt [c].

Laſtly, is it well proved, that, in the times of which we are ſpeaking, the Greeks deſigned even the conſtellations which they knew by the names which remain at this time in uſe in our aſtronomy? Do we not ſee on the contrary, that theſe names and theſe figures have ſuffered great variation among theſe people? The Great Bear, which afterwards they called *Helice*, is never called but *Arctos* by

[a] Newton's chron. of the Greeks, p. 87.
[c] See Plut. de Iside & Oſiride, p. 359. E.; Voſſ. de idol. l. 1. c. 31.

Homer and Heſiod *. The conſtellation of Charles's Wain, called by Homer *Bootes*, and *Arcturus* by Heſiod, has ſince been named Arctophylax, *the keeper of the bear* [f]. That of the Bull did not bear in the early times, among the Greeks, the name of that animal. They named that conſtellation originally † the *guardian of the ſeaſons* [g].

But what has been the origin of the names and the figures that the Greeks have given anciently to conſtellations? To what cauſe are the changes they have made in them referred? This is what I ſhall treat of in a particular diſſertation; I ſhall expoſe my conjectures about the origin of the names by which the firſt people have originally deſigned the conſtellations. I ſhall likewiſe give an account of the changes that theſe names have received among the Greeks, and of the motives which occaſioned them [h]. I think for this reaſon I ſhall be diſpenſed with at preſent from entering into any detail on this object.

With reſpect to the planets, it is certain, that, at the times we now mention, the Greeks only knew Venus. This is in effect the only planet which is ſpoken of in the writers of great antiquity. But the diſcovery of Venus conducted the Greeks but very ſlowly to the knowledge of the other planets. This is a fact of which I ſhall give the proof in the ſucceeding volume. We ſhall ſee there, that to the time that Eudoxus and Plato returned from Egypt, the Greeks had no idea of the proper motion of the planets. It is eaſy to be convinced of this, when we reflect, that, at the time of Pythagoras, theſe people ſtill believed that the Venus of the morning and the Venus of the night were two different planets. It was Pythagoras who drew them from ſo groſs an error.

* Beſides the names of Ἄρκτος, of Ἅμαξα, and of Ἑλίκη, given by the Greeks to the Great Bear, we ſee that they likewiſe deſign it by that of Ἄγαννα. Heſychius *in voce* Ἄγαννα.

[f] See Hygin. poet. aſtron. l. 2. n. 2. p. 360. † *Le gardien des termes.*

[g] Sphaera Empedocl. v. 98. & ſeq. See Hygin. poet aſtron. l. 2. where he has related all the different names given to the conſtellation by the Greeks.

[h] See at the end of this volume the firſt diſſertation on the names of the conſtellations.

The

The facts which I have expoſed appear to me ſufficient to give an idea of the ſtate of aſtronomy among the Greeks, in the heroic times. The inductions that may be drawn from them, if we may ſay ſo, preſent themſelves.

§ III.

Of geometry, mechanics, and geography.

I Shall not ſtop to inquire what knowledge the Greeks might have had in geometry, in mechanics, and in geography, in the ages we are running over at preſent. The facts which ancient hiſtory, and particularly Homer, furniſh for this epoch, prove that the Greeks then had ſome notions of the fundamental practices of theſe different ſciences. I have ſhewn elſewhere, that, without ſuch knowledge, no political ſociety could ſubſiſt. But to determine preciſely the ſtate in which the mathematics were in Greece in the heroic ages, is impoſſible. Ancient authors have tranſmitted nothing particular nor preciſe about this object. I do not think then, that it ought to be attempted. I could only repeat moſt of the conjectures, which I have propoſed in the firſt part of this work, on the origin and unfolding of the ſciences. The reader need only recollect what I have there ſaid, and he will ſee that almoſt all the reflections which I there made on the firſt people, may very well be applied to the Greeks of the heroic ages. I think, it will be better, to propoſe ſome conjectures on the cauſes which hindered for ſo long a time the progreſs of the ſciences in Greece.

I have already ſaid, and do not fear to repeat it, it is always ſurpriſing that the people with whom we cannot conteſt the glory of having carried the arts and ſciences to the utmoſt perfection; that the people regarded at this time, and with reaſon, as our maſters and models in all matters which raiſe and diſtinguiſh the human mind, had been ſo long a time bounded by notions extremely groſs.

From

From the epoch of the eſtabliſhment of the firſt colonies of Aſia and Egypt in Greece, to the time of Thales, that is to ſay, for more than a thouſand years, the Greeks made no progreſs in the ſciences, which the people of the eaſt had communicated to them. The continual intercourſe which Greece kept up with Egypt and Phœnicia, one would think, would have contributed to kindle and develop the ſeeds of knowledge. Yet this commerce, with people ſo improved, did not produce the effect naturally to be expected from it. Theſe firſt ſeeds were ſtifled. Let us endeavour to give a reaſon for this ſlowneſs and inactivity. By examining the ſtate in which Greece was in the ages which at preſent fix our attention, and by reflecting on the events which happened there at that time, we ſhall ſee that it was not poſſible for the Greeks to perfect the firſt knowledge which they had received from Aſia and Egypt.

I think, it is demonſtrated by all the lights that hiſtory can afford us on the origin and progreſs of the ſciences, that they did not begin to acquire any ſort of perfection, but in pretty conſiderable ſtates [i]. Greece in the heroic ages, and long afterwards, reckoned almoſt as many kingdoms as cities. We may eaſily comprehend how weak thoſe ſort of ſtates muſt have been. What inhabitants they had, muſt have been ſolely taken up with the care of their own preſervation. In ſuch a ſituation the ſciences could hardly make any progreſs.

Beſides, a nation cannot cultivate the ſciences, but in proportion to its enjoying tranquillity, which Greece was very far from enjoying the ſweets of in the heroic times [k]. Expoſed to the incurſions and ravages of ſtrangers, tormented with diviſions and inteſtine wars, engaged to carry their arms into diſtant climes; laſtly, expoſed to the moſt fatal revolutions, how could theſe people give them-

[i] See part 1. book. 3. chap. 2. art 6.
[k] See Thucyd. l. 1. n. 12.

ſelves

ſelves up to that repoſe and ſtudy which the arts and ſciences require? To prove this, let us give a ſhort but exact picture of the different revolutions with which that part of Europe was then agitated.

We have juſt ſeen that they formerly had not in Greece any flouriſhing ſtates; and of conſequence they had no ſecurity, no tranquillity in that part of Europe. Theſe countries then quite open, and without defence, were a prey to the avidity of the neighbouring people, who every inſtant came to attack and plunder them. In theſe unhappy times the inhabitants removed themſelves, as far as poſſible, from the ſea-coaſts for fear of pirates [l]. They had ſcarce any more ſecurity in the inland parts. The people pillaged, ſtript, and mutually drove them from their habitations. Thus they were always obliged to be armed [m]: they could neither trade, nor even cultivate the earth [n].

The different colonies which came from Aſia and Egypt to ſettle themſelves in Greece about the beginning of the ages we are now running over, drew them from the horrors to which they were then a prey. The conductors of theſe new migrations communicated to the Greeks the ſciences which theſe people had always wanted, or which at leaſt they abſolutely neglected to cultivate. They built cities in advantageous places, and at the ſame time commodious for traffic. They alſo found out the means of inhabiting the coaſts with ſome ſecurity. The ſea-ports, becoming rich, were augmented by little and little: the moſt powerful built walls, and ſecured themſelves from incurſions [o]. It was thus that Greece began inſenſibly to inſtruct and poliſh itſelf.

But the ſpirit of diſcord, almoſt at the ſame time, ſeized on the different ſtates, which then formed themſelves in each diſtrict. Without particulariſing the number of petty inteſtine hoſtilities, the two wars of Thebes, the laſt of which ended with the ruin of that city, of themſelves put

[l] Thucyd. l. 1. n. 7.; Philocor. *apud.* Strab. l. 9. p. 109.
[m] Thucyd. l. 1. n. 5. 6. 7. 12. & 17.
[n] See *infra*, book . chap. 4. [o] Thucyd. l. 1. n. 7. & 8.

all

all Greece in combuſtion. The expedition of the Argonauts, which afterwards employed the choice and flower of the nation in a diſtant country, the league formed a little afterwards for the deſtruction of Troy, laſtly, the revolution which the return of the Heraclidæ cauſed in Peloponneſus, did not give the Greeks time to breathe. The war of Troy had occaſioned the greateſt diſorders in Greece [p]; but the revolution which rendered the Heraclidæ maſters of Peloponneſus, had ſtill more fatal conſequences. This laſt event replunged Greece nearly into the ſame ſtate of barbariſm, from which the colonies from Aſia and Egypt had drawn them.

The reader may call to mind what I have already ſaid in the firſt book, of the efforts which the deſcendents of Hercules made to enter into the domain of their anceſtors, 80 years after the taking of Troy [q]. After various attempts, they made themſelves maſters of Peloponneſus. The ſucceſs of their enterpriſe threw Greece into the greateſt trouble and confuſion. Almoſt all the ancient inhabitants were driven from their firſt ſettlements. The commotion was general. The bad effects which this event produced were not confined to theſe calamities. The troops which the deſcendents of Hercules employed, were for the moſt part compoſed of Dorians of Theſſaly [r]. Theſe groſs and ſavage people threw Greece into a ſtate of ignorance and barbariſm nearly equal to that into which the Normans threw France about the end of the ninth century. Theſe Dorians exterminated or drove out almoſt all the inhabitants of Peloponneſus, and of one part of Attica. They deſtroyed moſt of the ancient cities, and founded new ones; the citizens of which, ignorant of letters, and neglecting the ſciences, only applied themſelves to agriculture and the military art. Thoſe of the ancient inhabitants who remained in theſe countries, were reduced to ſlavery. The others, forced to look for new habitations, ſettled themſelves

[p] See *infra*, book 5. chap. 3. [q] P. 45. & 46.
[r] Thucyd. l. 1. n. 12.; Pauſ. l. 5. c. 3. & 4.

in

in the iſles, and on the coaſts of Aſia Minor. The buſineſs of their ſettlement, and the care of defending themſelves againſt the people of thoſe countries, hindered them for ſome time of thinking to cultivate letters. Yet they did not entirely neglect them. The fertility of the countries which they inhabited, ſoon procured them that caſe and repoſe ſo favourable to arts and ſciences, that there came from thoſe countries the firſt authors, who deſerved, in every reſpect, to deſcend to poſterity; authors whoſe works we cannot at this time too much admire *. It was from theſe colonies that letters repaſſed into European Greece, and there began to baniſh barbariſm, which nevertheleſs ſupported itſelf there a long time, and reigned to the age of thoſe celebrated men, whom the Greeks honoured with the name of Sages, that is to ſay, to the times of Solon and Piſiſtratus †.

* Homer, Herodotus, &c.

† See Les memoires de l'academie des inſcriptions, tom. 7. memoires, p. 331. & 332.

BOOK IV.

Commerce and Navigation.

IN treating of the origin of commerce and navigation in the firſt part of this work, it was neceſſary to reſtrain ourſelves to general views. An effect of the obſcurity which reigns over the hiſtory of the ages which then fixed our attention; thoſe at preſent in queſtion will procure us more ſatisfaction. One may enter into ſome details on the ſtate of commerce and navigation among many nations. In the account I am going to give, I ſhall obſerve the chronological order and the ſucceſſion of facts, as much as poſſible; it is for that reaſon, I ſhall firſt ſpeak of the Egyptians. The maritime enterpriſes of Seſoſtris are the moſt ancient we have any knowledge of in the times of which we now undertake to give the picture.

CHAP. I.

Of the Egyptians.

I Said in the preceding volume, that the firſt inhabitants of Egypt had little inclination for commerce; I ſhewed alſo, that they muſt have addicted themſelves to navigation only very lately. Policy and ſuperſtition oppoſed them [a]. Seſoſtris, who aſcended the throne about 1659 years before Chriſt [b], ſilenced theſe motives, and baniſhed theſe prejudices. This prince, whoſe ambition knew no bounds, had propoſed the conqueſt of the univerſe [c]. But it was difficult for him to undertake ſo vaſt a project with-

[a] See book 4. chap. 2.
[b] *Supra*, book 1. chap. 3. p. 11.
[c] Diod. l. 1. p. 63.

out a fleet. Rejecting therefore the principles which the kings his predeceſſors had followed, with reſpect to the marine, he equipped a very large fleet; it conſiſted, they ſay, of 400 ſail [a]. If we believe the report of the authors of antiquity, theſe were the firſt ſhips of war that had been ſeen [c]. Before the Egyptians had only had weak barks, or even raſts, which ſerved them to coaſt about the borders of the Arabian gulf [d]. It was likewiſe on this ſea that Seſoſtris made his fleet be built [e]. I am perſuaded, though the ancients do not ſay ſo, that to effect this he had recourſe to Phœnician workmen. It is equally probable, that the greateſt part of the tackling which rigged theſe veſſels, was got from the ſame nation.

By means of his fleet, Seſoſtris made himſelf maſter of the greateſt part of the maritime provinces, and the coaſts of the Indian ſea [b]. We do not ſee that this prince is ſaid to have had ſhips on the Mediterranean. Diodorus ſays, it is true, that Seſoſtris conquered the Cyclades [f]. But it is very probable that this expreſſion ſhould be underſtood of ſome iſles of the Indian ſea, and not of thoſe which the ancients knew under that name in the Mediterranean. The manner alone in which Diodorus expreſſes himſelf, is enough to ſhew it *; eſpecially, as neither he, nor Herodotus, ſay in any other place, that Seſoſtris had a fleet in the Mediterranean.

The reign of this prince was a brilliant, but ſhort epoch, for the marine among the Egyptians. In effect, it does not appear that the ſucceſſors of Seſoſtris ever entered into his views, or continued his projects. The writers of antiquity do not mention any maritime enterpriſe undertaken in Egypt, in the ages we are at preſent running o-

[a] Id. ibid. p. 64.
[b] Herod. & Diod. *locis cit.*
[c] Herod. l. 2. n. 102.; Diod. l. 1. p. 64.
[d] Plin. l. 7. ſect. 57. p. 417.
[e] Herod. l. 2. n. 102.; Diod. l. 1. p. 64.

These authors only ſpeak of the Red ſea; but it is known, that under that denomination, the ancients included all the ſpace of ſea which waſhes Aſia to the ſouth.

[f] L. 1. p. 65.

* The name of *Cyclades* is a general term, which may agree with many collections of iſles.

ver.[l] The ancient manner of thinking, with reſpect to commerce and navigation, reſumed its empire. Entirely taken up with the means of rendering the inland commerce of his kingdom very flouriſhing, Seſoſtris wanted to have an eaſy communication between the different provinces of Egypt. With this view, he had cauſed many canals to be cut, which came from the Nile[m], and communicated with each other. By thus facilitating the tranſport of commodities, he had taken care that plenty ſhould ſpread itſelf over all his kingdom. Theſe works ſo proper to encourage commerce, yet could not inſpire the Egyptians with a taſte for it; they did not try to extend their commerce to any diſtance, nor to make with foreigners eſtabliſhments capable of ſupporting it; for I do not think one can refer to this end the different colonies which Cecrops and Danaus conducted from Egypt into Greece, about an hundred years after Seſoſtris. We know that the chiefs of theſe new migrations kept up no relation with Egypt[n]. They ought then only to be looked upon as adventurers, who, diſcontented with their lot, put themſelves at the head of a troop of vagabonds to go and ſeek their fortune in a foreign land. I alſo think that it had been with theſe ſecond colonies as with the firſt, that is to ſay, that they made their paſſage from Egypt into Greece in Phœnician bottoms[o].

The Egyptians continued to give very little acceſs to ſtrangers. The ports of Egypt, except that of Naucratis, remained always ſhut. They were not opened till under the reign of Pſammeticus[p], that is to ſay, more than 1000 years after Seſoſtris.

Although ancient Egypt was little given to commerce, the people notwithſtanding enjoyed immenſe riches. They owed them to the exploits and the conqueſts of their firſt ſovereigns. Theſe princes had over-run and ſubjected a great part of Aſia[q]. Theſe wars were not unprofitable;

[l] Herod. l. 2. n. 108. Diod. l. 1. p. 66.
[m] See Herod. l. 2. n. 151.
[n] See Marſh. p. 109. & 110.
[o] Diod. l. 1. p. 78.
[p] Id. ibid. p. 23. 24. & 56.

Seſoſtris

Seſoſtris got by his expeditions an immenſe booty [q]. Beſides, he impoſed conſiderable tributes of every ſort on the nations he had conquered [r]. They were even obliged to bring them to Egypt [s]. The ſucceſſors of this prince imitated his example. Ancient inſcriptions, which ſtill ſubſiſted in the times of Strabo and Tacitus, marked the weight of gold and of ſilver, the number of arms and of horſes, the quantity of ivory and perfumes, of corn and other commodities that each nation was to pay [t]. Theſe tributes, by the report of Tacitus, equalled thoſe which in his time the Parthians and even the Romans could demand from the people under their dominion [u].

It is not then ſurpriſing, that, in ſpite of their diſinclination to commerce, ancient Egypt is ſaid to have enjoyed great opulence. By the conqueſts of her firſt monarchs, ſhe was become the centre or boundary of a great part of the riches of Aſia. The ſuperb monuments which theſe princes cauſed to be erected, the immenſe works which they undertook, ſpread money over the nation, and circulated their treaſures. Each private perſon profited by it, and might that way alone enrich himſelf readily enough. Beſides, they were very luxurious in Egypt in early times. One may judge of this by the quantity of gold and ſilver vaſes, the precious habits, &c. which the Iſraelites brought from that country when they came out of it [x].

CHAP. II.

Of the Phœnicians.

I Have reſerved for the ages which we are running over at preſent, many details relating to the commerce and navigation of the Phœnicians. It is in effect to this epoch, that moſt of the maritime enterpriſes which have rendered

[q] Ibid. p. 65. [r] Diod. l. 1. p. 64. & 65. [s] Ibid. p. 65.
[t] Strabo, l. 17. p. 1171.; Tacit. annal. l. 2. c. 60. [u] Ibid.
[x] Exod. c. 12. v. 35.

theſe

theſe people ſo famous in antiquity ſhould be referred. Their hiſtory furniſhes a very convincing proof what induſtry can do, and ſhews very evidently to what pitch commerce is capable of raiſing a nation which applies to it with ardor.

When we ſpeak of the Phœnicians, we muſt diſtinguiſh the times with accuracy. Theſe people poſſeſſed originally a large extent of countries, compriſed under the name of the land of *Canaan*. They loſt the greateſt part of it by the conqueſts of the Iſraelites under Joſhua. The lands which fell in the diviſion to the tribe of Aſher, extended to Sidon [y]. That city notwithſtanding, was not ſubdued. The inhabitants preſerved their lives and liberty [z]. It even appears, that they were not diſturbed, but were permitted to enjoy great tranquillity [a]. The Sidonians made uſe of this to continue their commerce, and laboured to extend it more and more. They even found themſelves ſoon able enough to oppreſs the Iſraelites in their turn. This event happened in the times of the judges [b]. We are ignorant of the circumſtances, which beſides are foreign to our object. Let us return to the commerce of the Sidonians.

If the conqueſts of Joſhua took from the Phœnicians a great part of their dominion, they were well paid by the conſequences of that event. To ſupport and maintain their commerce with advantage, theſe people had occaſion to eſtabliſh warehouſes in the different countries where buſineſs might draw them. They were not able to form laſting ſettlements, but by the aid of a certain number of colonies. The revolution occaſioned in the countries of Canaan by the irruption of the Hebrew people, enabled the Sidonians to ſend colonies where-ever they thought proper. In effect, the greateſt part of the ancient inhabitants of Paleſtine ſeeing themſelves threatened with entire deſtruction, had recourſe to flight to ſave themſelves. Sidon offered them an aſylum: they caſt themſelves upon them; but the territory of that city was not ſufficient to ſupport this multitude

[y] Joſh. c. 10. v. 28.
[z] Judges c. 3. v. 3.
[a] Ibid. c. 18. v. 7.
[b] Ibid. c. 10. v. 12.

of

of refugees; it happened that they were ſtill under a neceſſity of finding new ſettlements [c]. Sidon lent them ſhips, and made good uſe of theſe new inhabitants to extend their trade and form ſettlements. From hence, that great number of colonies which went then from Phœnicia, to ſpread themſelves in all the countries of Africa and of Europe.

I ſhall not undertake to particulariſe exactly all the places where the Phœnicians came to introduce themſelves. The reader may conſult the authors who have diſcuſſed this matter with the extent it requires, and the exactneſs it merits [*]. I ſhall confine myſelf to general facts, which may enable the reader to judge of the nature and of the extent of the commerce which that nation carried on in the ages we are ſpeaking of at preſent. I ſhall alſo obſerve, that then there was no mention made of Tyre, not even of the ancient Tyre which was taken by Nabuchodonoſor. That city was not built till about 40 years after the taking of Troy [d]. It owed its origin to a colony of Sidonians [e]. Their beginnings, like all thoſe new ſettlements, were very weak. Homer, who ſpeaks ſo often of Sidon, does not once name Tyre. That city was not diſtinguiſhed enough in his time, to deſerve a place in hiſtory.

To return to our ſubject, the firſt ſettlements of the Phœnicians were in the iſles of Cyprus and Rhodes. They paſſed ſucceſſively into Greece, into Sicily and Sardinia. Afterwards they tranſported themſelves among the Gauls, and always advancing, they diſcovered the ſouthern part of Spain. Theſe people were inconteſtably the firſt navigators who are ſaid to have penetrated into that extremity of Europe. It is even in the Phœnician language, that we muſt ſearch for the etymology of the name which that kingdom ſtill bears at this day [†].

Till

[b] [c] See Procop. de bello Vandal. l. 2. c. 10. [d] Bochart, Huet, Newton, &c. [e] Marſh. p. 297. [*] See part 1. b. 4. c. 2. art. 1.

[†] They pretend that Spain was formerly filled with ſo prodigious a quantity of rabbits, that theſe animals, by means of digging the earth, almoſt overturned the houſes. Varro, *de re ruſtica*, l. 3. c. 13.; Strabo, l. 3. p. 213. 214. & 256.; Plin. l. 8. ſect. 43. & 83.

[‡] *Saphan* in Hebrew, little different from the Phœnician, ſignifies a *rabbit*.

SPANIA

Till this time the Phœnicians, like all the people of antiquity, had not gone out of the Mediterranean: their maritime expeditions were confined to the compaſs of that ſea and the ſouth of Spain was the bounds of their voyages. But that reſtleſs nation, covetous of gain, ſoon undertook the greateſt enterpriſes. By paſſing the ſouthern point of Spain, the Phœnician ſailors had perceived, that the Mediterranean communicated by a pretty narrow canal with another ſea. The dangers which preſented themſelves of going over this dangerous paſſage, and to engage themſelves in unknown latitudes, had always frightened the Phœnician pilots. Yet encouraged by perpetual ſucceſſes, they durſt at laſt venture themſelves. Thus about 1250 years before Chriſt, the Phœnician ſhips were ſeen coming out of the Mediterranean, and paſſing the Straits, entered on the ocean [f]. Succeſs crowned the boldneſs of this enterpriſe. They landed on the weſtern coaſt of Spain. This firſt voyage was followed by many others. The Phœnicians ſoon ſent colonies into theſe countries, founded cities there, and formed laſting ſettlements.

Their principal attention was to that iſle, known at preſent by the name of Cadiz [g]. They were not long of diſcovering the importance and advantage of that port. It was a convenient ſtorehouſe to lay up the rich effects which they brought from Aſia and the neighbouring countries. They could likewiſe collect there thoſe they received from Betique and other countries of Spain. To ſecure the poſſeſſion of that iſle, the Phœnicians built a city there [h], to which they gave a name declarative of the utility it was to them, and the uſe they made of it. They named it *Gadir*; a word which means *refuge, incloſure* [i].

The advantage which the Phœnicians had at firſt by

SPANIJA in the ſame language, from whence the Romans have made *Hiſpania*, and we Spain, as much as to ſay *full of rabbits*. Bochart *in* Phaleg. l. 3. c. 7. p. 192.

[f] See Diod. l. 5. p. 345.; Bochart *in* Phaleg. l. 3. c. 7. p. 189.; In Canaan, l. 1. c. 34. p. 662.

[g] It is ſituated near the weſtern coaſt of Andaluſia.

[h] Diod. l. 5. p. 345. [i] Bochart in Canaan, l. 1. c. [illegible]. p. 673.

trading

trading with Spain, was very conſiderable. The ancient inhabitants of that rich country were very deſtitute of arts and ſciences. They had gold and ſilver in abundance, but they did not know the uſe of them: ignorant of the value of thoſe metals, they employed them for the moſt vile uſes [k]. The Phœnicians knew very well how to avail themſelves of that ignorance. In exchange for oil and ſome trifles which they gave to theſe people, they received of them ſo prodigious a quantity of ſilver, that their ſhips could not tranſport the treaſure. They were obliged to take out all the lead with which their anchors were loaded, and to put there the ſpare ſilver [l]. The hiſtory of the firſt voyages which the Europeans made to America, gives us an exact image of theſe ancient events.

The riches which the Phœnicians drew from Spain, were not confined to gold and ſilver; without ſpeaking of wax, honey, pitch, vermilion, &c. iron, lead, copper, and above all tin, were the moſt lucrative objects [m]. All that was formerly uſed of this laſt metal paſſed through the hands of the Phœnicians. This ſhort expoſure ſuffices to ſhew the immenſe profits the return of ſhips loaded with ſuch cargoes would produce; for it is certain, that Phœnicia kept up a correſpondence with all its colonies except Egypt, which appears to have had entirely oppoſite principles.

Spain was not the only country beyond the pillars of Hercules, where the Phœnicians had penetrated. Being familiariſed with the navigation of the ocean, they extended themſelves to the left of the ſtraits of Cadiz, as far as to the right. Strabo aſſures us, that theſe people had gone over a part of the weſtern coaſt of Africa a little time after the war of Troy. According to this author, they had there formed ſome ſettlements and built ſome cities [n].

I dare not place in the ſame ages, their paſſage into Eng-

[k] Strabo, l. 3. p. 224.

[l] Ariſt. de mirab. auſcult. t. 1. p. 1165.; Diod. l. 5. p. 358.

[m] Diod. l. 5. p. 361.; P. Mela. l. 2. c. 6.; Strabo, l. 3. p. 212. 213. & 219.; Plin. l. 3. ſect. 4. p. 145. l. 4. ſect. 34. p. 228. l. 34. ſect. 47.

[n] [illegible] p. 224.

land. We might perhaps determine it by a reflection which the reading of the writers of antiquity furniſhes us with. They were perſuaded, that all the tin that was conſumed in the known world, came from the iſles of Caſſiterides; and there is no doubt, that theſe iſles were the Sorlingues, and a part of Cornwall [o]. We ſee by the books of Moſes, that, in his time, tin was known in Paleſtine [p]. Homer teaches us alſo, that they made uſe of this metal in the heroic ages [q]. This poet, we know, never gives to the ages he ſpeaks of but only ſuch knowledge as he knew belonged to them. It ſhould follow then, that the Phœnicians had traded in England, in very remote antiquity. Yet that is not my ſentiment.

In acknowledging that they uſed tin very anciently in many countries of Aſia, yet I do not think, that they got it from England. There is too great a diſtance between that iſle and Spain, to preſume, that the Phœnicians had attempted that paſſage in the ages we are at preſent ſpeaking of. Such a paſſage could not be made without quitting the coaſts too much. They muſt abandon themſelves entirely to the open ſea. It may be ſaid, that it was from the coaſt of Gaul oppoſite to England, that the Phœnicians went into that country; but that opinion would ſuppoſe, that, in the moſt early times, theſe people had run over all the coaſts of Spain, and almoſt all thoſe of Gaul; a ſentiment that appears to me improbable. I think then, that, in theſe ancient times, it was Spain and Portugal which furniſhed the Phœnicians with the tin with which theſe people traded ſo advantageouſly with other nations. This metal was formerly very plentiful in theſe two countries [r].

From the enumeration I have juſt made of the countries the Phœnicians traded to in the ages we are at preſent ſpeaking of, we may plainly ſee, what then was the greatneſs and extent of their commerce. We may judge of it

[o] See Bochart, Can. l. 1. c. 39. p. 722. & 724.
[p] Num. c. 31. v. 22. [q] Iliad. l. 11. v. 25. & 34. &c.
[r] Diod. l. 5. p. 361.; Strabo, l. 3. p. 219.; Plin. l. 4. ſect. 34. p. 328. l. 34. ſect. 47.; Stephan. de urbib. *voce* Ταρτησσος, p. 639.

by

by the quantity of gold and ſilver the Iſraelites found in Paleſtine, and by the luxury and magnificence which then reigned in theſe countries. The ſovereigns were there clothed in purple, the people wore gold ear-rings and fine necklaces. Even their camels were adorned with ſtuds, chains, and plates of gold [r]. Thoſe facts are very ſufficient proofs of the riches the Phœnicians had been uſed to in Paleſtine. Their commerce was ſo much the more advantageous, as in theſe ancient times the different countries of our world had ſcarce any relation with each other. By this means, the Phœnicians became commiſſioners and factors to all the known world. We ſee, that, at the time of the war of Troy, the Sidonians were able to furniſh other nations with every thing that could contribute to luxury and magnificence [s]. Such was the ſource of the immenſe riches that the Phœnicians had amaſſed. All trade being in their hands, theſe intelligent people only let people have a glimpſe of what they thought proper. They concealed with care the places to which they ſailed, and tried by all ſorts of means to take the knowledge of it from other nations [t]. The obſcurity which they affected to throw over their trade, made them be taxed with cunning and fraud [x]. Let us at preſent enter into ſome examination of the manner in which the Phœnician ſhips were conſtructed. We will alſo ſay a word or two of their progreſs in the art of navigation.

Originally they had only rafts, pirogues or ſimple boats. They uſed oars to conduct theſe weak and light veſſels. As navigation extended itſelf and became more frequent, they perfected the conſtruction of ſhips, they made them of a much larger capacity. There muſt then have been more hands and more art to work them. The induſtry of man commonly increaſes in proportion to his wants. They were not long of diſcovering the uſe they might draw from the wind to haſten and facilitate the courſe of a ſhip; and they

[r] Judg. c. 8. v. 21. *&c.*

[s] Hom. Iliad. l. 6. v. 289. 290. l. 23. v. 743.; Odyſſ. l. 4. v. 154. l. 15. v. 114.

[t] Strabo, l. 3. p. 175.

[x] Odyſſ. l. 14. v. 288. *&c.* l. 15. v. 414. *&c.*

found out the art of aiding it by means of maſts and ſails. There reigns a very great obſcurity about the time when theſe acceſſory parts of a ſhip were invented. I think the Phœnicians were the firſt who made uſe of the wind. I even think this manner of ſailing pretty ancient among theſe people. For how could they have undertaken ſuch long and difficult navigations as I have juſt mentioned with ſhips without ſails? Like our galleys, theſe veſſels went alſo with oars. They uſed ſails when the weather was favourable, and had recourſe to oars during calms, or when the wind was contrary.

I ſaid in the firſt part of this work, that many people were given to navigation very anciently. They could not long traverſe the ſeas, without having diſputes and conteſts riſe up among them. Covetouſneſs, the pride of being at the head, and jealouſy, muſt make them then think of the means of attacking and defending themſelves with ſucceſs on the ſeas. From thence they invented a ſort of ſhips proper for that uſe. We have ſeen before, that Seſoſtris paſſed in antiquity for the firſt who had ſhewn ſhips of war [y]. But I think we ſhould rather give that honour to the Phœnicians [z]. Be that as it will, we know, that, in the ages of which we now ſpeak, they diſtinguiſhed two ſorts of veſſels, one deſtined for commerce, and the other for naval expeditions. The fabric of theſe two ſorts of ſhips was different. The Phœnician ſhips of war, which I preſume ſerved as a model to other nations, were long and pointed. They called them *Arco* [a]; this is all that can be ſaid. Their merchant-ſhips were called *Gaulus* and *Gauloi*; they were on the contrary of a round form [b], or, to ſpeak more properly, almoſt round *. For I cannot believe, that, by the expreſſion *round* veſſels, the ancients meant a perfect roundneſs. How could ſuch ſhips keep

[y] *Supra*, chap. 1. p. 291. [z] See ibid.
[a] Bochart, Canaan, l. 2. c. 11. p. 819. & 820.
[b] Bochart, ib.
* This is the idea Feſtus gives when ſpeaking of the ſhips called *Gaulus*; he defines them, *Gaulus, genus navigii pene rotundum, vo[illegible]*, p. 162.

their

their way? They would at moſt be only capable of ſailing on rivers. I think then the *Gaulus* had their holds very large to be able to carry more goods. They called them *round* in oppoſition to ſhips of war which were extremely pointed.

Theſe ſorts of veſſels which had their hulk large and the keel flat [c], were ſubject to great inconveniencies, and muſt have cauſed great obſtacles in ſailing. A ſhip in effect of a round built and a large and flat bottom, would only draw very little water *. From hence it would yield to all winds, becauſe it would want a point of ſupport. Having a few feet in the water, ſhe would ſlide over the ſurface of the waves, without being able to defend herſelf or reſiſt them. She could not then hold her courſe without having the wind in the poop; and would not be able to carry much ſail †. The run of the Phœnician merchant-ſhips muſt have been, in conſequence of theſe principles, very ſlow and very uncertain. Such ſort of veſſels muſt neceſſarily take up a great deal of time in the leaſt voyages. It is not difficult to ſhew why the firſt navigators had ſtudied to give a round form to their merchant-ſhips. That ſort of conſtruction agreed perfectly with the ſtate of navigation in theſe remote times. At that time they never quitted the coaſts but from neceſſity. The ancients, of conſequence,

[c] Tacit. annal. l. 2. c. 6.

* They ſay of a ſhip, that ſhe draws ſo many feet of water, to expreſs how many feet ſhe is ſunk in the ſea.

† A ſhip of a long make, and that enters deeply into the water, keeps her courſe in almoſt all winds. By preſenting her ſide, ſhe makes from the large ſheet of water againſt which ſhe preſſes, a ſupport ſufficient to reſiſt the contrary motion which the wind may impreſs on her ſails. A king's ſhip, for example, of more than one hundred and fifty feet long, and that draws more than twenty feet of water. What a force muſt it not be for ſuch a ſhip to be able to diſplace ſidewiſe the enormous maſs of water which reſiſts it in a direction perpendicular to its length? It follows then from the effort of the wind, combined with the reſiſtance of the water, that ſuch a veſſel will eſcape by the diagonal. Thus the wind large, or on the quarter, is at this time reckoned the beſt wind to make a voyage. The wind in the poop is not ſo favourable, becauſe in that caſe there is only a part of the ſails in uſe; the wind cannot act upon them all at one time.

could

could not give much depth to their veſſels [d]; they endeavoured then to gain in the breadth what they had loſt in the depth.

I do not think that theſe ſhips had a prow and a poop marked and diſtinct. The form of them might be the ſame [e]. They might, as appears to me, ſteer them both ways. I judge thus from their fabric, which was very different from our veſſels. We have only one rudder fixed to the poop, but the ancients had to three or four [f]; that is to ſay, properly ſpeaking, they had none; and what they uſed for it, was, as I preſume, a ſort of very large and very long oar *. Theſe ſhips might, by this means, be worked any way they pleaſed. Some Indian nations ſtill uſe at this time ſhips which equally ſail by the prow or by the poop [g]. Perhaps alſo the rudders of the ancients, inſtead of being fixed to the poop or the prow, were placed on the ſides [h], as they are ſeen on the *praos*, or pirogues of Bantam [i].

The methods and practices the Phœnicians made uſe of to direct their navigations, are not known to us. Hiſtory has tranſmitted nothing to us on a ſubject ſo curious and intereſting. I ſhall not therefore ſtop to make conjectures founded on no facts. I only think to be able to explain why theſe people had undertaken great enterpriſes before any other nation of antiquity.

In treating of the means uſed by the firſt navigators to know their route, and to be certain after a ſtorm how far they had been thrown out of their way, I ſaid that Urſa Major had been probably the firſt guide they had followed.

[d] See Tacit. annal l. 2. c. 6.

[e] See Hygin. fab. 168. & 227.; Suid. *in voce* Ἀμφιπρύμναις, t. 1. p. 153. and *voce* Δίκροτα, p. 589.; Scheffer. de milit. nav. veter. l. 2. c. 5. p. 147.

[f] Athen. l. 11. c. 12. p. 489.; Hygin. fab. 14. p. 50.; Scheffer *loco cit.* p. 146.

* There are ſeen pretty large and ſtrong boats on the Seine which have no other rudder.

[g] Rec. des voyages qui ont ſervi à l'établiſſement de la compagnie des Indes Holland. t. 4. p. 594.

[h] See Tacit. annal. l. 2. c. 6.

[i] Voyages de la campagnie des Indes Holland. t. 1. p. 36.

owed. I have ſhewn at the ſame time to what inconveniencies that choice expoſed them [k]. The Phœnicians were the firſt who perceived it. They muſt therefore have ſearched in the heavens ſome point that would ſerve to direct the courſe of a ſhip in a more preciſe and certain manner than Urſa Major. They muſt have perceived, that above that conſtellation there was one much leſs, almoſt the ſame figure, but in a contrary ſituation, and being much nearer the pole, never ſet for the ſeas they then frequented. They knew this conſtellation by the name of *Urſa Minor*. The Phœnicians choſe a ſtar to be their guide and their point of knowledge [l]. I ſay a ſtar in general; for in the times we are treating of, that is to ſay, about 1250 years before Chriſt, the ſtar which is at the extremity of the tail of Urſa Minor, and by which we regulate at this time, could not ſhew the pole with preciſion. It was then too diſtant [m]. I believe that the Phœnicians made uſe, in the ages I ſpeak of, of the bright ſtar placed in the ſhoulder of Urſa Minor, which is of the ſecond magnitude, and very remarkable. It was this diſcovery which probably encouraged the Phœnicians early to undertake great voyages, and to expoſe themſelves on unknown ſeas. Their ſkill in maritime affairs and in buſineſs was greatly celebrated in the times of the war of Troy [n].

CHAP. III.

Of the Phrygians, Lydians, Trojans, &c.

HIſtory has not handed down to us the ſame lights on the commerce of the other people of Aſia, as on that of the Phœnicians. Yet it cannot be doubted, that trade was very flouriſhing, in many countries in that vaſt part

[k] See part 1. book, 4. chap. 2.
[l] See Bochart. Can. l. 1. c. 8. p. 410.; Palmer. exercitat. p. 445.
[m] Acad. des ſciences, année 1733, mémoires, p. 449.
[n] Odyſſ. l. 15. v. 414. & 415.

of

of the world, and particularly in Aſia Minor, in the ages we are ſpeaking of at preſent. It is true, as I have juſt ſaid, that we are ignorant of the details and particulars. We can only judge from certain tracts diſperſed in the writings of the hiſtorians of antiquity.

What fable, for example, declares of Midas, King of Great Phrygia, that he turned into gold every thing he touched, muſt be underſtood, I think, of the ſkill of that prince to improve the productions of his country, and of his attention to make trade flouriſh there. Such was the ſource of the riches of this prince, ſo boaſted of in antiquity [o]. May not one ſay, by a metaphor, which is not too far fetched, that the effect of trade is to turn all into gold? This conjecture appears to me ſo much the more probable, as Midas was particularly attached to the perfecting navigation. They ſay he had invented the anchor which they uſed to ſtop their ſhips [p]. We alſo ſee that the Phrygians were looked upon, for ſome time, as maſters of the ſea [q]. None but trading nations could pretend to that ſort of ſuperiority.

The Phrygians alſo paſſed in antiquity for the inventors of waggons with four wheels [r], ſo commodious for carrying merchandiſe by land. I had forgot to mention, that an ancient tradition attributed to Demodice, wife of Midas, the invention of coining money [s]. We muſt then conclude, from all theſe facts, that the people of Great Phrygia were then much given to trade.

We might ſay as much of thoſe who inhabited the Leſſer Phrygia. Trade muſt have been very flouriſhing in that country. Tantalus, who reigned there about the middle of the ages which now employ us, had been equally renowned as well for his riches as for his ſordid avarice [t]. Maſter of a great treaſure, he durſt not touch it. His ſon

[o] See Plin. l. 33. ſect. 15. p. 613. & 614.
[p] Pauſan. l. 1. c. 4. p. 12. [q] Syncell. p. 181.
[r] Plin. l. 7. ſect. 57. p. 415.
[s] Pollux. l. 7. c. 6. § 83. p. 1063.; Heraclid. in polit. verbo Φρυγίων.
[t] See Mezeriac. ad epiſt. Ovid. t. 2. p. 329.

Pelops

Pelops made a better uſe of it. Obliged to renounce the throne of his father, and to fly his country, he went into Greece when Acriſius reigned in Argos. Pelops had brought great riches from Aſia. That prince knew to diſperſe them properly. They owed to him a degree of power that ſoon raiſed them above all the ſovereigns of Greece [t], though at that time very poor and very indigent, trade being ſtill unknown in that part of Europe.

I have nothing particular to ſay at this time on the commerce of the Lydians. We have ſeen in the firſt part of this work, that theſe people were addicted to trade in very early times [u]. They continued it with ſo much ſucceſs, that Crœſus, their laſt ſovereign, was reputed the richeſt monarch in the univerſe.

It is alſo certain, that trade muſt have been in great eſteem in the kingdom of Troy. The riches of Priam do not permit us to doubt of it [x]. The ſtates of that prince were ſituated very advantageouſly. They were extended over all the weſtern coaſt of the Helleſpont: the iſles of Tenedos and of Leſbos were even comprehended in them [y]. The Trojans had known to profit by that happy ſituation, to addict themſelves to commerce and navigation [z]. They had good ports [a] and ſkilful builders of ſhips [b]. Æneas and Antenor were able, even after the ruin of their country, to equip each a fleet, conſiderable enough to look out for, and form new ſettlements [c].

I know not whether we muſt put the Carians in the number of trading nations. The origin of theſe people is not otherwiſe known. It is only known, that they pretend to have inhabited, time immemorial, that province of Aſia Minor, which, from their name, is called Caria [d]. It appears, that the Carians frequented the ſea very early. But it was not with a view to trade. They only did it to rob and pil-

[t] Thucyd. l. 1. p. 6. & 7.; Plut. *in* Theſ. p. 2. A. [u] Book 4. c. 4. p. 269. & 273. [x] See Hom. Iliad. l. 24. v. 514. &c.
[y] Hom. ibid. &c.; Virgil. Æneid. l. 2. v. 21. &c.
[z] See Plin. l. 7. ſect. 57. p. 417. [a] Virgil. Æneid. l. 3. v. 5. & 6.
[b] Hom. [illegible] v. 60. &c. [c] Virgil. Æneid. l. 1. v. 242. l. 3. v. 4. &c.
[d] See acad. des inſcript. t. 9. mem. p. 113.

lage the coaſts. This at leaſt is the idea that ancient authors give us [e]. We ſee in effect, that under the reign of Cecrops the Carians came to make deſcents, and to ravage the coaſt of Attica [f]. They infeſted by their piracies the Ægean ſea before the time of Minos [g]. They were even ſettled in the Cyclades. If we believe Thucydides, Minos came there to drive them out [h]. I ſay, if we believe Thucydides, for Herodotus does not agree with that author about the manner in which Minos treated the Carians. He pretends, that the King of Crete did not drive them from the Cyclades; they were permitted to ſtay there, on condition, that they joined a number of their veſſels to the fleets which that prince ſhould think proper to equip [i]. Though it be thus in theſe two narrations, it always reſults, that the Carians were addicted to navigation in very early antiquity; but it is not ſeen that they applied equally to commerce.

CHAP. IV.

Of the Greeks.

IF the reader will call to mind what I have ſaid in the preceding books of the ancient ſtate of Greece [k], he will eaſily perceive, that commerce muſt have been unknown there for many ages. The firſt inhabitants of that part of Europe had no connection nor communication, and by conſequence no traffic nor trade. Their beſt hiſtorians agree in this [l]. Nearly about the time of Abraham, ſome colonies going out of Egypt paſſed into Greece. Theſe new migrations civilized the inhabitants a little, and communicated to them ſome tinctures of the arts and ſciences; but theſe firſt ſeeds were ſoon choaked [m]. Laſtly, they ſaw ſucceſſively,

[e] See Thucyd. l. 1. p. 6.
[f] Philocor. *apud* Strab. l. 9. p. 609. [g] Thucyd. l. 1. p. 4.
[h] Ibid. [i] L. 1. n. 171.
[k] See part 1. book 1. art. 5.; part 2. book 1. c. 4. & book 2. ſect. 2. c. 1.
[l] See Thucyd. l. 1. p. 2. [m] See ſupra, b. 2. p. 173.

and

and at laſt, in the ſpace of one age, Cecrops, Cadmus, Danaus, &c. come and form new eſtabliſhments in Greece. Theſe laſt colonies ſucceeded more happily than the firſt in poliſhing that country. Their chiefs ſucceeded in perſuading the Greeks to addict themſelves to agriculture [n]. From thence commerce was ſeen to ſpring up among theſe people. Theſe facts are perfectly conformable to all that remains of ancient traditions. They teach us, that the cuſtom of trafficking was not introduced into Greece till ſome years after the arrival of Cadmus. It is to Bacchus, grandſon of this prince, that antiquity attributes the inſtitution of all the rules relative to this object [o].

I ſaid in the firſt part of this work, that originally trade was only carried on by exchange, and that it was by eſtimation they then regulated the price of the effects with which they would trade. We have there alſo ſeen, that the people were not long of perceiving the inconveniencies of that way of trading, and had ſought for means to remedy it, and that ſucceſſively they had invented meaſures, then weights and ſcales. I remarked, that they had afterwards introduced metals into commerce, as common ſigns and repreſentations of merchandiſe; and that in the firſt times it was the weight which regulated the price; and that, laſtly, they had found out the art of making money properly ſo called [p]. The hiſtory of commerce among the Greeks, gives us a faithful image of theſe different gradations; but it is difficult to mark the epoch, and aſſign the time of the greateſt part of theſe cuſtoms.

It is certain, that the primitive manner of buying and ſelling by exchange originally had place in Greece. This manner of trafficking was ſtill uſed at the time of the war of Troy. In the Odyſſey, Minerva diſguiſed in the figure of a ſtranger, ſays, that ſhe traded on the ſea, and that ſhe was going to Temeſe to look for tin to exchange againſt iron [q]. Exchange not only had place in trading by wholeſale, but likewiſe in trading by retail. In the Iliad, many

[n] See ibid. p. 174. [o] Plin. l. 7. ſect. 57. p. 411. [p] Book 4. c. 1.
[q] L. 1. v. 182. &c.

ſhips loaded with wine arrived from Lemnos at the Grecian camp; immediately the troops try to procure it, ſome for tin, others for iron, theſe for ſkins, and thoſe for oxen. They even gave ſlaves [r].

In theſe paſſages Homer does not ſay, that they meaſured or weighed the goods with which they trafficked; but it muſt be underſtood. We ſee in effect by other places of this poet, that meaſures [s] and balances [t] were then known. We muſt not therefore depend upon thoſe authors, who would make Pheidon of Argos paſs for the inventor of weights and meaſures in Greece [u]. That prince did not appear till ſome time after Homer [x]. I ſhall entirely agree, that Pheidon found the art of perfecting weights and meaſures: that is the ſentiment of many writers of antiquity [y].

Although the manner of trafficking by exchange was ſtill uſed at the time of the war of Troy, yet from that time metals were introduced into commerce. Homer often ſpeaks of talents of gold [z]. It appears plain enough, that in early times it was the weight that determined the value of metals among the Greeks, as well as among the ancient people. We might even ſay, that we find a proof of it in the etymology of the word *talent*, which was the ſame with the Greeks as the French ideal livre, or livre of account. That term ſignified originally in Greek *balances, weights.*

With reſpect to money, it is almoſt impoſſible to be able to determine with preciſion, the time the uſe of it was introduced into Greece. The ancients are divided as well about the epoch as about the author of that invention. Some give the honour to Erichthonius fourth King of Athens [a]. This

[r] L. 7. v. 492. &c. [s] Iliad. l. 7. v. 471. &c.
[t] Ibid. l. 8. v. 69. &c.
[u] Plin. l. 7. ſect. 57. p. 414.; Euſeb. chron. l. 2. p. 112. Schol. Pindar. ad Olymp. od. 13.
[x] See Marſh. p. 420. [y] Syncell. p. 198.; Iſidor. orig. l. 16. c. 24. This is what ſhould be concluded from the manner they expreſs themſelves about Pheidon. Herod. l. 6. n. 127.; Strab. l. 8. p. 549.
[z] See Feith. antiq. Hom. l. 2. c. 10. p. 201.
[a] See Hygin. fab. 274. p. 327.; Plin. l. 7. ſect. 57. p. 414.; Pollux, l. 9. c. 6. p. 1063.

Indeed

This prince lived about 1513 years before Chriſt. Others refer the art of coining money to Pheidon King of Argos [b]. This epoch falls about 890 years before Chriſt. There are laſtly ſome who attribute that invention to Ægineres [c], but without fixing the time.

If we conſult Homer to clear up this queſtion, we ſhall find nothing that is abſolutely deciſive. This poet, as I have juſt ſaid, ſpeaks often enough of talents. We ſee farther, that, on many occaſions, to diſtinguiſh the value or the price of a thing, he makes uſe of this expreſſion: It is worth an hundred *oxen*; it is worth nine [d]. This manner of expreſſion, as well as the uſe of the *talent* in Homer, has given room for great diſputes among the critics.

Some think, that this manner of deſigning the price of a thing by a certain number of oxen, ſhould not be taken literally. It ſhould be underſtood, ſay they, of certain pieces of money which they called *oxen*, becauſe they bore the impreſſion of that animal [e]. The coins of that fabric were of gold [f]. They were current principally among the Athenians, and in the iſle of Delos [g]. According to Plutarch, Theſeus was the firſt who uſed this money. He marked it with an ox, ſays that hiſtorian, either in memory of the bull of Marathon, or with a view to exhort the Athenians to tillage [h]. I do not think, that Plutarch has hit upon the true motives of this cuſtom. I ſhall give the reaſon of it immediately. Though it be ſo, we cannot doubt, that theſe pieces of gold marked with the impreſſion of an ox, were formerly pretty much diſperſed in Greece: they have even given

Indeed Pliny and Hyginus do not expreſsly ſay, that Erichthonius firſt uſed money. Yet it may be conjectured, as on one ſide Pliny ſays, that Erichthonius invented ſilver, and on the other, Hyginus ſays, that this prince was the firſt who made that metal known to the Athenians This conjecture is ſtrengthened by the teſtimony of Pollux, who places Erichthonius in the number of thoſe who paſſed for having introduced money into Athens.

[b] Strabo, l. 8. p. 577.; Pollux, *loco cit.* p. 1062.

[c] Ælian. var. hiſt. l. 12. c. 10.

[d] Iliad. l. 2. v. 449. l. 6. v. 236. l. 21. v. 79.

[e] Pollux, l. 9. c. 6. § 60. p. 1029.; Schol. Homeri *ad* Iliad. l. 2. v. 449. & *ad* l. 21 v. 79.

[f] Schol. Hom. *ad* Iliad. *loco cit.* [g] Pollux, *loco cit.* p. 1029. & 1030.

[h] In Theſ. p. 11.

riſe

riſe to that famous and ancient proverb, *He carries an ox upon his tongue*[i], which they applied to thoſe who had ſold their vote and were ſilent for money [k].

Other critics maintain, that Homer meant it all naturally of oxen, and that this was the manner of eſtimating and denoting the price of all goods at the time of the war of Troy [l]. Thus, when they ſaid, that ſuch a thing was worth ten oxen, an hundred oxen, &c. they really meant, that they ſhould give ten oxen, an hundred oxen in exchange for that merchandiſe.

There are, laſtly, ſome who take a middle way between theſe two opinions, and pretend, that in theſe paſſages of Homer there is no queſtion neither of pieces of money, which bore the impreſſion of an ox, nor of real oxen. Their opinion is, that this ſort of money conſiſted in pieces of gold or ſilver, which they cut proportionate to what they valued an ox [m].

With reſpect to the *talent*, it is ſtill more difficult to give an exact notion, or to conjecture what idea they annexed to that word in the heroic ages. Certain commentators advance, that they had then pieces of money called *talent* [n]. Others, and theſe much the greater number, believe that weight alone regulated the price of that ſort of money; that is to ſay, that they called *talent* a certain quantity of metal weighing a certain weight: it is for this reaſon, ſay they, that there are ſpoken of in antiquity *great* and *little* talents relative to their weight. Farther, they maintain, that they never had pieces of money known and denoted by the name of *talent*: it was, add they, a ſimple way of counting and valuing large ſums. Among ſuch diſputes and difficulties, here is the ſentiment which to me appears moſt probable.

[i] Æſchyl. *in* Agamemn. v. 36.

[k] Pollux, *loco cit.* p. 1030.; Suidas, t. 1. p. 449.; Heſychius *voce* Τάλαντος; Euſtath. ad Iliad. l. 1. v. 449.

[l] Pollux, l. 9. c. 6. ſegm. 73. & 74.; Kuſter, *ad* Suid. Ἀνάφασις not. (14) t. 1. p. 128.

[m] Otho Sperling. de numm. c. 22. p. 144. [n] Feithius, l. 2. c. 10. p. 201.

I think, with the greateſt number of authors, that they had in the heroic ages ſtamped money among the Greeks. I preſume, that this invention had been brought to them by the different colonies from Aſia and Egypt, who came ſucceſſively to eſtabliſh themſelves in Greece. I think I have ſufficiently ſhewn in the firſt part of this work, the antiquity of money in Phœnicia, Aſſyria, and Egypt[o]. I ſhall add, that the firſt money of the Greeks bore the impreſſion of an ox. The teſtimony of the writers of antiquity is preciſe and unanimous in it[p]. The motives of this choice are eaſily perceived. Before the Greeks had introduced metals into their commerce, they made uſe of oxen as the moſt precious merchandiſe to value all other ſorts of goods[q]. The Romans did the ſame in early times[r]. When the Greeks afterwards learned the art of impreſſing on a certain portion of metal, a mark which could aſcertain its price and value, they naturally choſe at firſt the impreſſion of the object which had ſerved them originally to value all other merchandiſe. It ſeems to me then, that Homer meant theſe ancient pieces in the paſſages where he values the price of any goods by a certain quantity of oxen. I further think, that it had been with the firſt Greek money as with that of all the ancient people. I would ſay, that it was very groſs and ſhapeleſs. We muſt look upon Pheidon of Argos as the firſt who is ſaid to have ſhewn the Greeks the art of giving to their coins a regular and agreeable form. It is in this ſenſe, as I preſume, that we ſhould give to this prince the title of the inventor of money in Greece.

It is not ſo eaſy to explain what Homer underſtood by the word *talent*. I do not think, that they ever had a piece of money which bore that name. We muſt preſume, that the talent was then fictitious money. We know in effect, that, beſides real ſorts of gold, ſilver, and copper, the ancients uſed fictitious money in calculation, otherwiſe called money

[o] Book 4. c. 1. [p] See *ſupra*, p. 309. & 310.

[q] See Pauſ. l. 3. c. 12. p. 235.

[r] See Plin. l. 18. ſect. 3. p. 98. l. 33. ſect. 13. p. 610.; Columel. *in* præfat. l. 7.

of

of account, which was only, as at this time, a manner of computing. For example, with the French, the ſum of fifty livres is reputed to contain fifty pieces called livres. Yet theſe pieces are not real; that ſum muſt be paid in different ſpecies, as in lewis d'ors, in crowns, or other current money. It may have been the ſame with the Greeks of the *talent*, which having ſerved originally to weigh gold and ſilver, was afterwards applied to mean a certain quantity of theſe metals reduced into money; a quantity which, according to all appearances, was inconſiderable enough in the firſt times. In effect, Homer gives the ſum of two talents of gold, as one of the leaſt objects of all thoſe which compoſed the prizes of the games celebrated by Achilles to honour the funeral of Patroclus[r]. Let us obſerve further, that the ſame poet never ſpeaks of drachmas, nor obolus's, &c. It may be inferred from this, that theſe little coins, ſo proper to facilitate trade by retail, and above all, in the ſale of proviſions, were ſtill unknown in Greece at the time of the war of Troy.

I ſhall not ſtop to inquire into the means which the Greeks uſed originally to execute their interior commerce. We are ignorant in what time theſe people had learned to make uſe of beaſts of burden to carry goods. We only know, that they uſed carts very anciently. The Greeks were indebted for that knowledge to Erichthonius fourth King of Athens[s], which epoch falls about 1513 years before Chriſt. With reſpect to boats, it is not poſſible to fix the time in which the uſe of them was introduced into Greece.

Whatever way the Greeks carried on their interior commerce, it muſt have been a long time weak and languiſhing. Anciently they had no ſtrong cities in Greece, and much leſs flouriſhing ſtates. They did not cultivate the earth, and the arts were very little known there[t]. Independent of

[r] Iliad. l. 23. v. 269.

[s] Euſeb. Vet. Hiſtor. l. 3. c. 38.; Tertull. de ſpect. c. 9.; Euſeb. chron. l. 2. p. 19.

[t] Thucyd. l. 1. p. 2. 6. 9.; Herod. l. 8. n. 137. See alſo ſupra, book 2. c. 1.

their

their want of induſtry; the dangers to which travellers were expoſed in the heroic times, formed an obſtacle to the circulation and progreſs of commerce. The roads were every where infeſted with robbers, and they could not travel without being well armed [x]. Theſeus made himſelf immortal by his courage and activity in clearing his country of the thieves who infeſted it. Theſe exploits eſtabliſhed the public ſecurity, and the roads from that time were free [y]. This hero had propoſed the example of Hercules, who had employed the beſt part of his life in running over Greece to exterminate thieves and robbers *.

If the Greeks, in the heroic times, had little opportunity for exerciſing their commerce by land, they found yet greater difficulties to ſurmount with reſpect to the ſea. One may judge of this by the facts which the hiſtory of navigation among theſe people preſents; an hiſtory which muſt neceſſarily precede that of their maritime commerce.

The Greeks, whoſe lot it ſeems to have been to borrow from other nations the firſt elements of the moſt uſeful ſciences, owed to foreigners the firſt notions of the art of navigation, an art in which they afterwards excelled. The firſt principles were brought to them by the colonies, which, about the time of Abraham, made the conqueſt of Greece under the conduct of the Titan princes [z]. The anarchy which followed the ſudden extinction of that family [a], did not allow the Greeks to profit by that diſcovery. The ſea-coaſt became even dreadful to thoſe who inhabited it. They were ſoon attacked by a number of pirates. Being unable to oppoſe their violences, they had no choice but to retire into the inland countries [b]. The conductors of the laſt colonies which came from Egypt and Aſia into Greece, ſhew-

[x] Thucyd. l. 1. p. 2.; Apollod. l. 3. p. 206.; Plut. *in* Theſ. p. 3.

[y] Apollod. Plut. *loco cit.*; Pauſ. l. 2. c. 1. p. 112.

* Such was the ſtate of France at the beginning of the third race. All communication of one country with another was then intercepted.

[z] See Æſchyl. *in* Prometh. vincto, v. 466.

[a] See part 1. art. 5. p. 65. 66. [b] Thucyd. l. 1. p. 6.

ed theſe people how to defend themſelves againſt the incurſions of pirates. For this purpoſe they perſuaded them to unite, to build cities, and to fortify them [c]. The Greeks were then enabled to inhabit the ſea-coaſts, and to apply to navigation.

The inhabitants of Attica appear to have been the firſt who enjoyed this advantage. They owed it to Cecrops, who, at the head of an Egyptian colony, came and ſettled in that country 1582 years before Chriſt [d]. There is room to believe, that this prince was either accompanied by a ſmall fleet, or that he cauſed ſome ſhips to be built on a model of his making. We ſee, in effect, that Cecrops uſed to ſend to Sicily for the corn his colony wanted [e]. It muſt alſo be thought, that the Athenians had ſome naval forces at that time. Hiſtory ſays, that Eriſichthon, ſon of Cecrops, ſeized on the iſle of Delos [f], 1558 years before Chriſt. Such an expedition could only ſucceed by means of a certain number of ſhips. Yet it does not appear that theſe firſt enterpriſes had any conſequences. Every thing, on the contrary, leads us to think, that the Athenians, after the death of Cecrops, neglected naval affairs, and loſt ſight of that important object. We ſee, that, in the time of Theſeus, they were obliged to have recourſe to the ſailors and pilots of Salamin to conduct the ſhip that carried this hero into Crete [g]. We will remark farther, that for many ages the Athenians had only one port, which was that of Phaleris [h], which, to ſpeak properly, was nothing but a bad harbour.

Other people of Greece addicted themſelves, about the ſame ages, to navigation, and diſtinguiſhed themſelves greatly. Such were the inhabitants of the iſle of Ægina, to whom ancient memoirs attribute the invention of that art [i]. Such alſo were the inhabitants of Salamin, who

[c] Philocor. *apud* Strab. l. 9. p. 609.; Thucyd. l. 2. p. 108.
[d] See *ſupra*, book 1. chap. 4. art. 1. p. 16.
[e] Tzetzes *ex* Philocor. *ad* Heſiod. op. v. 32. p. 18. edit. in 4to. 1603.
[f] Pauſ. l. 1. c. 31.; Euſeb. chron. l. 2. n. 90. p. 76.; Athen. l. 9. p. 392. according to the correction of Caſaubon, animadv. p. 673.; Syncell. p. 153.
[g] Plut. *in* Theſ. p. 7. [h] Pauſ. l. 1. c. 1. p. 3.
[i] Heſiod. fragm. p. 343.

appear

appear to have excelled, in the heroic times, by their ſkill and experience in navigation [k]. We may alſo put the Argives in the number; and that not without good reaſon. The veſſel in which Danaus came into Greece, has been celebrated by all the writers of antiquity [l]. We are not ignorant, that this prince ſeized on the throne of Argos 1510 years before J. C. [m]; but we may ſay, that none of theſe people could be compared with the Cretans. Minos has been always looked upon by the ancients as the firſt Greek prince who had the empire of the ſea [n]. I ſpeak of Minos the Second, who took ſo bloody a vengeance of the Athenians for the murder of his ſon Androgeos [o]. This prince was able to equip a fleet ſtrong enough to clear the ſea of the pirates who infeſted it [p]. This empire of the ſea, of which antiquity gives the honour to Minos, muſt only be underſtood of the ſuperiority he had in the Cretan ſea and the adjacent iſles: that is to ſay, that this prince having a great number of ſhips in theſe parts, was there the moſt powerful. With regard to the maritime commerce of the Cretans, I do not find any thing of all that remains of antiquity, that can give us the leaſt indications of it.

We ſee ſome traces of maritime expeditions in what the ancient mythology has preſerved for us of the voyages of Bellerophon, of Perſeus, and of Hercules [q]. But I doubt if theſe enterpriſes have been ſo extenſive as certain modern critics would perſuade us [r]. The Greeks were then too ignorant in navigation. Although their writers have boaſted greatly of the naval forces of Minos, yet we ought not to form a great idea of the fleet of this prince. The ſhips which compoſed it, ſcarce deſerved that name.

[k] See *infra*, p. 328.
[l] Apollod. l. 2. p. 63; Plin. l. 7. ſect. 57. p. 417.
[m] See *ſupra*, p. 34.
[n] Thucyd. l. 1. p. 4.; Herod. l. 3. n. 122.; Ariſt. de repub. l. 2. c. 10.; Diod. l. 4. p. 304; Strabo l. 10. p. 730.
[o] Plato de leg. l. 4. p. 825. [p] Thucyd. l. 1. p. 4.
[q] See les mem. de l'acad. des inſcript. t. 7. h. p. 37. &c.
[r] Id. ibid. p. 220. &c.

They had no ſails. Dædalus is always looked upon in the Greek antiquity to have invented them, when he tried to find means to fly from the iſle of Crete. This famous artiſt then found, ſay they, the ſecret of availing himſelf of the wind to haſten the courſe of his ſhip. By means of this new diſcovery, his ſhip paſſed ſafely through the middle of Minos's fleet, without their being able to incloſe him; the uſe and force of oars giving way to the activity of the wind, of which Dædalus had the advantage [r].

This knowledge had not then made a great progreſs among the Greeks. It appears, indeed, that after Dædalus they uſed ſails; but they were ignorant of the art of managing them properly. Æolus, he who received Ulyſſes on his return from Troy, paſſed in Greece for the firſt who had ſhewn the ſailors to know the winds, and the manner of profiting by them, by turning the ſails agreeably to their direction [s]. Yet what can we think of theſe inſtructions? At the time of Homer, that is to ſay, about 300 years after the war of Troy, the Greeks only knew the four cardinal winds [t]. Vitruvius and Pliny tell us, that theſe people were a long time ignorant of the art of ſubdividing the intermediate parts of the horizon, and of determining a number of rhombs ſufficient to ſerve the purpoſes of a navigation of ſmall extent [u].

The voyage which the Argonauts undertook to penetrate into Colchis, made the Greeks make ſome progreſs in naval architecture. Till that time, by the confeſſion of their beſt hiſtorians, theſe people only uſed barks and little merchant-veſſels [x]. Jaſon foreſeeing all the dangers of the expedition he meditated, took extraordinary precautions to make it ſucceed. He cauſed to be built at the foot of Mount Pelion in Theſſaly, a ſhip, which, for largeneſs, and com-

[r] Plin. l. 7. ſect. 57. p. 418.; Pauſ. l. 9. c. 11. p. 732.
[s] Diod. l. 5. p. 336.; Plin. l. 7. ſect. 57. p. 416.; Servius *ad* Æneid. l. 1, v. 56.
[t] Odyſſ. l. 5. v. 295.
[u] Vitruv. l. 1. c. 6.; Plin. l. 2. ſect 46. p. 96.
[x] Diod. l. 4. p. 285.

pleteneſs

pleteneſs of rigging, ſurpaſſed all thoſe that had been ſeen to that time. This was the firſt ſhip of war which went out of the ports of Greece [c]. The fame of this armament being ſpread, all the moſt diſtinguiſhed people of the nation would have a part in it, and imbarked under the conduct of Jaſon, 1253 years before J. C.

It would be very ſatisfactory to be able to penetrate into the motives and the object of an enterpriſe in which all Greece was intereſted. But the events of theſe remote times are ſo involved in fables, that it is very difficult to obtain the truth from them. We cannot determine exactly what the golden fleece was, of which the Argonauts propoſed the conqueſt. The ſentiments of ancient authors are very much divided on this point. The voyage of the Argonauts was intended, according to ſome, to draw from Colchis the treaſures which Phryxus had carried there [d]; others think, that the notion of the golden fleece aroſe from the cuſtom they had, in theſe countries, of collecting, by means of ſheep-ſkins, the gold which rolled down certain torrents [e]. Varro believes that this fable owed its origin to a voyage undertaken by ſome inhabitants of Greece, who went to look for ſkins and other rich furs which Colchis furniſhed in abundance [f]. According to this ſentiment, which has been adopted by many modern critics [g], we ſhould only look upon the expedition of the Argonauts as an enterpriſe formed by ſome merchants aſſociated to make new diſcoveries. I do not ſpeak of the viſions of the alchymiſts. Accuſtomed to find every where the ſecret of the great work, they will have it, that the Argonauts undertook the voyage to Colchis, with a deſign to

[c] Diod. ibid.; Plin. l. 7. ſect. 57. p. 417.

[d] See Herod. l. 7. n. 197.; Diod. l. 4. p. 209.; Hygin. fab. 3; Palæphat. c. 31. p. 39.

[e] Strabo, l. 11. p. 763.; Appian. de bell. Mithridat. p. 242. Near Fort-Louis, they uſe ſuch fleeces to gather the gold powder, which the Rhine rolls down. When theſe ſkins are well filled, one may, by alluſion, call them fleeces of gold.

[f] De re ruſt. l. 2. c. 1.

[g] Le Clerc b. univ. t. 1. p. 247; Mem. de Trev. Juin. 1702. p. 66.

bring

bring from thence a book written on ſheeps ſkins, in which was contained the ſecret of making gold [h].

Of all thoſe who have tried to clear up this event, I think that Euſtathius has given us the moſt juſt and moſt exact idea of it [i]. He took it from an ancient hiſtorian [k]. The voyage of the Argonauts, according to this author, was at once a military and mercantile expedition. The object which they propoſed to themſelves, was to open the commerce of the Euxine ſea, and at the ſame time to ſecure ſome eſtabliſhments. To ſucceed in this, they muſt have had a fleet and troops. Thus the armament of the Argonauts was compoſed of many ſhips, and they left colonies at Colchis. We find a proof of this in Homer and many other writers [l]. Yet moſt of the poets have only ſpoken of the ſhip Argo, becauſe, being the admiral of the fleet, that veſſel carried the princes who aſſiſted in the voyage. The other objects of that enterpriſe do not equally intereſt poetry and the muſes.

I ſhall not undertake to follow the Argonauts in their voyage. For want of ſufficiently underſtanding navigation, their fleet was a long time on different coaſts. They ran a great riſk in the paſſage of Cyanees or Symplegades. They formerly called ſo a heap of rocks which ſhew themſelves four or five leagues from the entrance of the Euxine ſea. As they are very near each other, in proportion as you are diſtant from them, or you approach to them, theſe rocks appear to join or to ſeparate. The waves of the ſea, which daſh againſt them with impetuoſity, raiſe a vapour, which, obſcuring the air, hinder the diſtinguiſhing exactly the objects, and augment the illuſion [m]. At the time of the Argonauts, they believed theſe rocks moveable, and they imagined that they joined to deſtroy ſhips in their

[h] Suid. *voce* Δέρας, t. 1. p. 525.; Anonym. Incred. c. 3. p. 86.
[i] Ad Dionyſ. Perieget. v. 689. [k] Charax.
[l] Iliad. l. 5. v. 641. &c.; Plin. l. 6. ſect. 5. p. 305.; P. Mela, l. 1. c. 19. p. 106.; Strabo, l. 11. p. 758.; Euſtath. *loco cit.*
[m] Tournefort, voyage du Levant, t. 2. p. 149. &c.

paſſage.

paſſage [n]. Terrified at the aſpect of this ſtrait, our heroes let go, ſay they, a dove to try if ſhe could paſs it ſafely. The bird eſcaped by loſing the end of her tail. The Argonauts emboldened by this example attempted the paſſage. The ſhip Argo only touched with her poop, of which ſhe loſt a little [o]. The dove is, without doubt, an emblem of a ſmall veſſel which they ſent to diſcover the paſſage. Apollodorus ſays, that ſhe loſt the end of her tail; an expreſſion which ſignifies, that the ſhip ſtruck her rudder againſt ſome rocks. They add, that ſince that time Neptune fixed theſe rocks [p]; that is to ſay, that this paſſage being afterwards known, they made no more difficulty of attempting it.

Laſtly, after many other adventures, which I paſs over in ſilence, the Argonauts diſcovered Caucaſus. That mountain ſerved them as a land-mark, and directed them to enter into Phaſus, where they anchored pretty near Æa, which was then the capital of Colchis. I ſhall ſay nothing of the conſequence of that expedition, which does not afford any light either in commerce or navigation. I ſhall only add one reflection on that event, conſidered merely as a maritime enterpriſe.

Some perſons, little attentive to the times, and to the circumſtances in which the Greeks attempted the voyage to Colchis, have not perceived all the boldneſs of it. That exploit ſo boaſted of, ſay thoſe critics, would not at this time be the ſubject of the moſt trifling converſation. It was to make themſelves immortal at a very little expenſe. They were very happy, add they, who lived in ſuch ages; they had only to place themſelves properly, &c.

I doubt whether thoſe who ſpeak thus of the expedition of the Argonauts, have paid ſufficient attention to the ſtate of navigation at that time in Greece. That art

[n] Apollod. l. 1. p. 42.; Homer. Odyſſ. l. 12. v. 66. &c.; Strabo, l. 1. p. 39. l. 3. p. 222. &c.; Plin. l. 4. ſect. 27. p. 219.; Ammian. Marcell. l. 22. c. 8. p. 310.

[o] Apollod. l. 1. p. 48. & 49. [p] Ibid. p. 49.

ſcarce

ſcarce emerged from its infancy. The Greeks, in the heroic ages, were abſolutely deficient in experience and ſkill in navigation, yet they went to encounter a ſea that was entirely unknown to them [q].

I think then, all things conſidered, there was as much danger, and, of conſequence, as much merit in the voyage to Colchis, as there has been in the moſt famous voyages undertaken for theſe two centuries. The ſuccours which the navigators of theſe latter times have been able to procure to themſelves, diminiſh conſiderably the obſtacles they may meet with.

After the expedition of the Argonauts, the Greeks turned their thoughts more particularly to maritime affairs. We may judge of the progreſs they made in the marine, by the fleet which they aſſembled to carry the war into Aſia and ruin Troy. It conſiſted of twelve hundred veſſels [r]. Yet this armament was only thirty-five years [s] poſterior to the voyage to Colchis.

I ſhall not ſtop to give the particulars of the number of ſhips which each of the people of Greece furniſhed, who had a part in that grand expedition. I ſhall content myſelf with ſome general obſervations.

The naval forces of Agamemnon, King of Argos and Mycenæ, muſt have been conſiderable. This prince had equipped 160 ſhips [t]. The Athenians brought 50 [u]. That was a great many for people who had only begun to uſe the ſea ſince the reign of Theſeus. It is aſtoniſhing enough, that in leſs than forty years they were able to furniſh ſuch a number; but it is much more ſurpriſing, that the Athenians ſhould have ſuffered their marine afterwards to come to nothing; there was no more mention of it for the ſpace of 700 years, which had elapſed from the war of Troy to the battle of Marathon: for, according to the remark of Thucydides, it was not till ten or twelve years

[q] See Strab. l. 1. p. 39.
[r] Hom. Iliad. l. 2. B. v. 16. &c.; Thucyd. l. 1. p. 8.
[s] See Ban. explicat. des fables, t. 6. p. 442.
[t] Hom. Iliad. l. 2. B. v. 83. & 118. [u] Ibid. v. 64.

after

after that famous day that the Athenians became ſailors [x]; and yet from that time they were looked upon as the people of Greece who beſt underſtood navigation [y].

The Lacedæmonians muſt alſo have addicted themſelves to maritime affairs ſome time before the war of Troy. Menelaüs King of Sparta commanded 60 ſhips [z]. One would believe that theſe people at that time ſurpaſſed the Athenians, who had only ſent 50. But it muſt be obſerved, that the armament of Menelaus was not compoſed ſolely of ſhips furniſhed by Sparta. Homer names many other cities, who being at that time dependent on Menelaus, had contributed to form his ſquadron; whereas the 50 ſhips of the Athenians had been equipped by the ſingle city of Athens. Navigation, beſides, had never been the part in which the Lacedæmonians diſtinguiſhed themſelves. Lycurgus, who gave laws to Sparta many ages after the war of Troy, forbade navigation entirely [a].

It is remarked, that Homer does not ſpeak of Corinth, a city greatly celebrated by the other writers of antiquity, for its commerce and maritime forces. Without doubt, in the heroic times, the Corinthians were not yet famous for their ſkill in marine. Beſides, theſe people were at this time ſubject to the kings of Mycenæ; they marched under the orders of Agamemnon [b].

It appears, that the combined fleet of the princes of Greece arrived happily before Troy; hiſtory does not furniſh us, in this paſſage, with any event relative to navigation.

I have ſaid in the firſt part of this work, that there is no mention made in early antiquity of ſea-fights. If we would believe certain memoirs, Minos was the firſt who ventured on one [c]. This is a fact which can neither be

[x] L. 1. p. 11. & 12.
[y] They ſaid in Greece: *The Athenians for the ſea.*
[z] Hom. Iliad. l. 2. B. v. 91.
[a] See part 3. book 4. chap. 3.
[b] Hom. Iliad. l. 2. B. v. 77.; See alſo Pauſ. l. 2. c. 4.
[c] Plin. l. 7. ſect. 57. p. 418.

denied nor affirmed poſitively. It only appears pretty certain, that this prince ſuppreſſed the pirates who ravaged the Ægean ſea [d]. But that might happen without ſea-fights; perhaps it was by deſtroying their ſhips in the harbours and roads, to which they were uſed to retire. We find alſo in Athenæus, that the Argonauts were attacked by the Tyrrhenians, who engaged them in a bloody battle. All theſe heroes, except Glaucus, were wounded there [e]. No author of antiquity has ſpoken of this event. Athenæus is the only one who has mentioned it on the authority of an ancient writer named Poſis. He reports this fact in the third book of his work intitled *Anazmide*. As this Poſis is entirely unknown to us, it is uncertain whether this author deſerves much credit.

We may oppoſe to all theſe different facts, the ſilence of Homer. We do not find in his writings any indication of a naval battle. He never ſpeaks even of a battle between ſhip and ſhip. Yet ſuch deſcriptions would have adorned his poems, and it would have been eaſy for him to have placed one there. But further, we have ſeen in the preceding chapter, that the Trojans had ſhips. Æneas and Antenor ſaved themſelves, each ſeparately, at the head of a pretty conſiderable fleet [f]. Yet it is not ſeen, that the Greeks endeavoured to oppoſe their retreat. Hiſtory ſays nothing of it. This ſilence is ſo much the more ſingular, as the Greeks, as to what appears, were maſters of the ſea. It is ſaid in the Iliad, that when Iphidamas came to the ſuccour of Troy with twelve ſhips, he left them at Percope, and finiſhed his voyage by land [g]. It is not then eaſy to comprehend how Æneas and Antenor could paſs by the fleet of the Greeks, which had the ſame route for their return, without giving battle. It is true, ſome authors pretend, there had been a treaty between the Trojan princes and the Greeks, not to diſturb them in their retreat [h]. This is a fact which I ſhall not undertake to

[d] See *ſupra*, p. 318.
[e] L. 7. c. 12. p. 296.
[f] See *ſupra*, p. 296.
[g] L. II. v. 228. & 229.
[h] Dionyſ. Halicarn. l. 1. p. 37.

examine

examine into: but ſuppoſing that Homer has followed this opinion, not to attack the fleet of Æneas, nor that of Antenor, by the ſhips of Menelaus, of Ulyſſes, and the other Greek princes, when he relates the maritime expeditions before the taking of Troy; it is very worthy of remark, that this poet has not thought of making a deſcription of ſome naval combat, he who has neglected no occaſion of ſpeaking of all that he could have read and ſeen.

I have traced ſuccinctly the hiſtory of the marine among the Greeks in the heroic times. Let us now examine what was the conſtruction of their ſhips, and the manner in which they were navigated. Homer ſhall be my principal guide. It is to his writings that we ought to refer all that concerns that high antiquity.

We may be certain, that the Greeks, in the heroic times, did not uſe much art in the building of their ſhips. Pieces of timber placed at a little diſtance from each other, and united by tenons, formed the carcaſe [i]. Planks of a moderate thickneſs, pinned, and faſtened with cords to the ribs of the ſhip, made the ſides [k]. Other planks much longer, made the lower part or bottom of the hold [l]. Theſe ſhips were decked; and Thucydides is deceived in advancing, that the veſſels that carried the Greeks before Troy, were not covered [m]. It is ſufficient to open Homer to be convinced that they were. This poet ſays, that Ulyſſes finiſhed his ſhip, by covering it with very long planks [n], terms which neceſſarily mean the deck. I preſume, that theſe ſhips had no keel; Homer would not have forgot it [o]. With re-

[i] Odyſſ. l. 5. v. 252. & 253.

[k] Ibid. v. 248. I ſay pinned, and not nailed; becauſe Homer uſes in theſe paſſages the word γόμφος inſtead of ἧλος, which he commonly uſes for nails.

There are many nations at this time who only uſe pins to fix the planks of their ſhips. See M. Paul. l. 1. c. 23.

[l] Odyſſ. l. 5. v. 252. [m] L. 1. p. 8.

[n] Odyſſ. l. 5. v. 253. See alſo l. 13. v. 73. & 74. where it is ſaid, that the Phœacians ſet up Ulyſſes's bed on the deck of their ſhips.

[o] The ſhips of the Coſſacks in the Ukraine have no keel. Mercure de France, Novembre 1752, p. 56. & 57.

ſpect to the rudder, they had only one [p]; it was fortified on both ſides with hurdles made of the branches of ſallow or oſier. This method was invented to enable the rudder to reſiſt the impetuoſity of the waves [q]. The ſhips of the Greeks differed at that time from thoſe of the Phœnicians, which, as I have remarked, had more than one rudder [r].

We do not ſee, that they uſed any iron at that time in their conſtruction [s]. Theſe veſſels then muſt have been very rude, eſpecially as the Greeks, in the ages I ſpeak of, were ſtill ignorant of the uſe of the ſaw. They wrought their wood only with a hatchet and plane [t]. We may judge, after this detail, of the ſtate of naval architecture at that time among theſe people. Their workmen had no other guide, but a very rude practice. They were not in a ſtate to apply mathematics of which the Greeks, at that time, had no notion, to this part of navigation.

We ſhould be ſurpriſed at the ſort of wood the Greeks uſed to build their ſhips. They uſed alder, poplar, and firs [u]. We take care, at this time, that no ſuch ſorts of wood be uſed in the building of our ſhips; we only uſe it for the inſide work [x]. But it muſt be obſerved, in theſe hot countries, the trees I have juſt mentioned are of a different ſpecies from thoſe of our climates. They are much more hard, and much leſs ſubject to alter or warp. At this time, the Turkiſh ſhips are entirely built of fir, becauſe the fir in theſe countries is as good as the oak in France. The pre-

[p] Odyſſ. l. 5. v. 255. [q] Ibid. v. 256. & 257.

[r] See ſupra, chap. 2. p. 304.

It appears that the Greeks afterwards adopted the practice of other nations, and put more than one rudder to their ſhips. See Scheffer, de milit. naval, l. 2. c. 5. p. 146, & 147.

As to what this author ſays, that, in all the repreſentations which remain of the ſhip Argo, that ſhip is always repreſented with more than one rudder, this concludes nothing for the times of which I ſpeak. Theſe repreſentations are arbitrary deſigns, made in times too late to have any authority. It is well known that there are now no monuments of that high antiquity.

[s] See Pauſ. l. 9. c. 16. p. 742.

[t] See ſupra, book 2. ſect. 2. chap. 3. p. 207. & 208.

[u] Odyſſ. l. 5. v. 239.; Plato de leg. l. 4. p. 824.

[x] They never uſe fir for the outſide, but when they ſheath the ſhips going to America, to defend their ſides againſt the worms that eat into them.

ference

ference then which the ancients gave to theſe woods, was very well founded: they even found a great advantage in uſing them; for theſe woods being very light, they were moſt proper to make the ſhips built of them good ſailers.

Homer does not acquaint us whether the Greeks uſed to careen their ſhips in the heroic times. Suidas ſays, the Phœacians, among whom Ulyſſes was caſt by a tempeſt, covered their ſhips with pitch [y]; but this authority is too modern for ages ſo diſtant as thoſe of which we now ſpeak. What we are ſure of is, that, in latter times, they uſed for this purpoſe, pitch, gum, and even wax [z].

It is not the ſame with reſpect to ballaſt. They perceived at that time the neceſſity of giving to ſhips a certain weight to make them ſink into the water, to ſerve them as a counterpoiſe, and hinder them from being overſet. Thus the Greeks took care to ballaſt their ſhips [a]. They pretend that Diomede, on coming from Troy, uſed for this purpoſe the ſtones of that unfortunate city [b].

Our ſhips have four maſts. Thoſe of the Greeks, at the time of the war of Troy, had only one [c], which even did not remain fixed, ſince they uſed to lower it upon the deck when the ſhip was in port. They raiſed it when they would go out, and ſecured it with ropes [d]. The maſt was only croſſed with one ſail-yard [e]. It would be difficult to determine, with certainty, if the yard carried many ſails, or only one. The firſt ſentiment appears the moſt probable, conſidering that Homer always named ſails in the plural [f]. They managed them by means of many ropes.

[y] Voce Ναύσικαα, t. 2. p. 600.

[z] See Ovid. de remed. amor. v. 447. epiſt. 5. v. 42. Metam. l. 11. v. 314. l. 14. v. 532.; Voſſ. de idol. l. 4. c. 92. p. 549.

As the ancients did not uſe wax to light them, it is not ſurpriſing that they uſed it to lay upon their ſhips.

[a] Odyſſ. l. 5. v. 257. [b] Lycophron, Caſſand. v. 618.

[c] Odyſſ. l. 5. v. 254.

[d] Iliad. l. 1. v. 434.; Odyſſ. l. 2. v. 424. & 425. l. 15. v. 290.

Their maſts muſt have been diſpoſed almoſt like the paſſage-boats, and large veſſels uſed on the Seine. They lower them when they want to go under the arch of a bridge.

[e] Odyſſ. l. 5. v. 254. [f] Ibid.

We

We ſee, that, in the heroic times, the different tacklings of a ſhip had each their particular name, and that relative to their deſtination [g].

The ſails were made of different ſubſtances, of hemp, ruſhes of long-leaved plants, of matts and ſkins [h]. Yet it appears, that thoſe of the Greeks were moſt commonly of cloth [i]. It is the ſame with reſpect to cables; they uſed ſkins, flax, broom, hemp, in a word, all the different plants and barks which could ſerve for that purpoſe [k]. Cables of ruſhes or ſea-willow ſeem to have had the preference with the Greeks in the heroic times. They got them from Egypt, where this plant is very plentiful [l]. Homer does not ſay, whether they covered the ropes with any preparation, which, by defending them from the impreſſions of air and water, might keep them from rotting.

The cuſtom of painting and adorning ſhips is very an-

[g] Odyſſ. l. 5. v. 260.

In theſe paſſages, by ὑπείρας, muſt be underſtood, the ropes which work the yard; by κάλως, thoſe which ſerve for the ſails; and by πόδας, thoſe which ſecure and hold the maſt, the ſame which we call *ſtrouds*. When cables are mentioned which ſerve to hold the ſhip, whether in port or on the coaſt, Homer always deſigns them by the word πρυμνήσια; but when the rigging in general is ſpoke of, this poet uſes the word πείσματα. Thus, properly ſpeaking, the πείσματα are the ropes which ſerve for working a ſhip, and the πρυμνήσια, thoſe only at the ſtern. The difference of theſe two words is evident from their etymology. The firſt comes from πείθω; this name is taken from the uſe the ſailors make of theſe ropes. They uſe them to make the ſhip turn and move as they pleaſe. The ſecond comes from πρύμνη, which means the poop or ſtern of a ſhip.

[h] See Voſſ. de phyſiol. l. 5. c. 39. p. 661.; Scheffer, l. 2. c. 5. p. 111.

[i] Odyſſ. l. 5. v. 258. &c. l. 2. v. 426.

Euſtathius conjectures that the ſails of the Greek were of linen, on this, that it is ſaid in the ſecond book of the Odyſſey, v. 426. that thoſe of Telemachus's ſhip were white.

[k] Iliad, l. 2. v. 135.; Odyſſ. l. 2. v. 426.; Aul. Gell. l. 17. c. 3; Voſſ. & Scheffer, *locis cit.*

[l] Odyſſ. l. 21. v. 390. & 391.

Theſe cables were made of a plant, called *Byblus*, which they gathered in the moraſſes of Egypt. It was a ſort of cane or reed which had at the top a ſort of hair, if one may call it ſo. They made cables for ſhips and ropes of this hair, as they then made ropes for wells of the bark of the linden-tree. See Strab. l. 17. p. 1191.

cient,

cient, and took place before the war of Troy [m]. Herodotus ſays, that then they uſed vermilion for this purpoſe. The manner in which he expreſſes himſelf, gives to underſtand that this cuſtom did not ſubſiſt in his time [n].

After having ſpoken of the conſtruction of ſhips and their rigging in the heroic ages, it is proper to examine what their form was at that time.

It appears, that the Greeks had very early two ſorts of conſtructions; one for merchant-ſhips, and the other for ſhips of war. The firſt were very broad, having the hold very large [o]. The others, on the contrary, were made long. Such, they ſay, was the ſhip in which Danaus came into Greece. This veſſel had fifty oars, that is to ſay, twenty-five on each ſide. They pretend, that it ſerved for a model for the ſhip Argo, the firſt veſſel of war the Greeks are ſaid to have built [p]. Beſides, we ſhould look upon all theſe veſſels as a ſort of galleys which went with ſails and oars. In effect, independently of ſails, rowers are always mentioned, and the benches on which they ſat [q]. I ſhall ſay nothing of veſſels of many ranks of wars; they are not mentioned in Homer. They were only uſed ſince the war of Troy [r].

Whatever form the ſhips of the Greeks might then have, they could not be very large. The largeſt Homer mentions are thoſe of the Bœotians; they carried, ſays he, one hundred and twenty men [s]. It may, perhaps, be thought that the poet only meant the troops that diſembarked; but this is not probable, ſince, as Thucydides very well obſerves, the ſoldiers ſerved for rowers [t]. I think then the whole complement of theſe ſhips was one hundred and twenty men. Beſides, we may judge of the ſmallneſs of their capacity from the cuſtom the Greeks then had of drawing

[m] See Feith. antiq. Hom. l. 4. c. 12. p. 500.
[n] L. 3. n. 58. [o] Odyſſ. l. 5. v. 249. &c.
[p] See Bochart, in Chan. l. 2. c. 11. p. 819.; Meziriac, ad ep. Ovid. t. 2. p. 81.
[q] Iliad l. 1. v. 309. Odyſſ. l. 2. v. 419. &c.
[r] Thucyd. l. 1. p. 8. & 10. [s] Iliad. l. 2. B. v. 16. & 17.
[t] L. 1. p. 8. See alſo Huet. hiſt. du commerce, p. 270. & 271.

their

their ſhips on land when they were in port [u]. Thus we ſee, that when they were going to imbark, the firſt operation was to launch the ſhips into the water [x]. This work was then ſo eaſy, that the ſailors never failed to take away the rudder of their veſſels when they were on ſhore, leſt any body ſhould run away with them without their knowledge [y].

This cuſtom of putting their ſhips on dry ground when they were not uſing them, is very extraordinary; and yet it was generally practiſed. The Grecian fleet was ſhut up in their camp before Troy. They had fortified their camp as well for their ſecurity, as to defend their veſſels from the incurſions of the enemy [z]. It is not eaſy to comprehend how they could, after a certain time, make uſe of ſuch veſſels which muſt have been extremely warped and open; they muſt have taken great care to repair them. The Greeks muſt have been ſo much the more attentive, as ſailing on the Mediterranean, their ſhips required a firm conſiſtence. The ſurges of that ſea are very ſhort and very frequent; of conſequence, they would daſh oftener againſt the ſhip, and make her work much more than upon the ocean.

As to the manner of conducting a veſſel, every thing proves to us how very ignorant the Greeks were in that art in the heroic times. Although theſe people ſteered in ſight of the land, as much as they poſſibly could [a], yet they were forced on many occaſions to go off to ſea [b]. I know not by what means ſailors, at that time, could direct their courſe. We have great advantages from the obſervation of the meridian heights of the ſun. It is thus that we de-

[u] Iliad. l. 1. v. 485.; Odyſſ. l. 11. v. 20.; Heſiod. op. & dies, v. 624.; Strabo, l. 4. p. 298.

[x] Iliad. l. 1. v. 308.; Odyſſ. l. 2. v. 389. l. 11. v. 2.; Heſiod. op. & dies, v. 631.

[y] See academ. des inſcript. t. 7. h. p. 38.

[z] Iliad. l. 7. v. 437.

[a] Virgil, in making his hero range along the coaſts of Greece, Italy, and Sicily, inſtead of conducting him over the open ſea, is, in that point, conformable to the ancient practices.

[b] This is in ſea-terms, *to put off to ſea.*

termine

termine with eaſe the elevation of the pole, and ſteer in conſequence. But theſe practices were abſolutely unknown to the Greek navigators. They never thought of the operations we make in the day-time, to aſcertain the courſe of a ſhip in the open ſea.

With reſpect to thoſe which they executed during the night, we ſee that the Greeks had then ſome notions of the utility ariſing from the obſervation of the ſtars to conduct them at ſea. They pretend, that they owed this knowledge to Nauplius, one of the Argonauts [c]. Be this as it will, it is certain, that the art of governing a ſhip by the aſpect of the ſtars, muſt have been ancient enough in Greece. Homer deſcribes Ulyſſes conducting his boat by regarding attentively the Pleiades, Urſa Major, and Orion [d]. We ſee alſo Calypſo ordering this prince to make his route by leaving Urſa Major [e] on the left. That conſtellation was the principal guide of the Greek pilots [f]. I have ſhewn in the firſt part of this work, the inconveniencies of this practice, and the dangers which muſt reſult from it [g]. Beſides, theſe obſervations, at that time, muſt have been very rude and very defective. They made them by a ſimple view; the Greeks, at that time, not having inſtruments to take their height.

They knew ſtill leſs of ſea-charts. How then could they be certain of the land they wanted to find, or, on the contrary, avoid the ſands, rocks, and the coaſts where they were in danger of running aground? Laſtly, what muſt have been their embarraſſment, when they were overtaken by a ſtorm? In dark nights, in thick weather, which do not allow us to ſee the ſtars, a pilot could not make his courſe. He muſt then wander at a venture [h], and land where he could. Homer makes Ulyſſes arrive in different coun-

[c] Theon. Alex. ad Arati phæn. p. 7.
[d] Odyſſ. l. 5. v. 272. & 275. &c. [e] Ibid. v. 276. & 277.
[f] See Scheffer. l. 4. c. 6. p. 297. &c.
[g] Book. 4. chap. 2.
[h] See Virgil Æneid. l. 3. v. 200. &c.

tries; but it is always without this hero's dreaming of the climates in which he finds himself [i].

We shall remark further, that the Greeks, in the ages of which I speak, wanted many machines, the use of which is indispensable in navigation. At the time of the Argonauts, they did not know anchors [k]. I even doubt whether they were known in the age of Homer. The Greek word which is used to mean an anchor properly so called, is not found in any of his poems. He has not borrowed any comparison from it. If we examined attentively the different tackling described by this poet, when he speaks of ships going either into harbours, or into unfrequented roads, there is nothing there to make us suspect that the Greeks used anchors. I know very well there are some passages in the Iliad and in the Odyssey, which they commonly translate *casting anchor*; but it is improper and without foundation [l]. The Greeks at that time only used, as to what appears, large stones to hold their ships. When Ulysses came to the road of the Lestrigons, he tied his ship to a rock with cables [m]. When that prince went from the port of the Phæacians, the rowers unloosed the cable which

[i] Odyss. l. 6. v. 119. &c. l. 9. v. 174. &c.

[k] Plin. l. 36. sect. 23. p. 741.; Arrian. Peripl. Pont. Eux. p. 121.

[l] The passages we speak of are found in the Iliad, l. 1. v. 436.; Odyss. l. 15. v. 497. & l. 9. v. 137. Ἐκ δ' εὐνὰς ἔβαλον, --- οὔτ' εὐνὰς βαλέειν. They translate these passages by *casting anchor*. The reason on which the ancient critics, such as Eustathius and Hesychius, support themselves to interpret εὐνὴ by *anchor*, is, say they, because εὐνάζω, which signifies *to sleep*, comes from εὐνὴ; for, add they, the immobility of a ship at anchor may very well be represented as a sort of sleep, especially in a poetic style. Διὰ τὸ ἀγκύρας ἐκβαλλομένης εὐνηθῆναι τὴν ναῦν, *eo quod anchora dejecta, navi veluti dormiat.* Without doubt, it is from this explication that the lexicographers have rendered the word εὐνὴ by *anchor*.

But I do not think that explication free from all criticism. I doubt whether one can say, even in a poetic style, of a ship at anchor, that she sleeps. For in what manner could they fix her? she is always rolling. Besides, could not we equally say of a ship fixed by cables to a rock, or held by large stones, that she sleeps, as they can say it of a ship held by anchors?

I think then that by the word εὐνὴ we ought not to understand *anchors*, such as the Greeks used afterwards, but large stones which served to hold the ships.

[m] Odyss. l. 10. v. 96.

held

held the ſhip by means of a ſtone bored through, to which ſhe was tied [n]. It appears to me demonſtrated, that at that time the Greeks had no knowledge of anchors, and, for want of that machine, they uſed large ſtones [o].

There is greater reaſon alſo to think that theſe people did not uſe the ſounding lead. Homer never ſpeaks of it, and no other writers contradict his ſilence. We may judge, from theſe facts, of the dangers to which the Greek ſailors were expoſed. They could ſcarce know the depth of the ſea, or know how many fathom it was, or be ſure that the anchorage was good, &c. They ran the riſk then of ſtriking every inſtant. Beſides, having no anchors, when they were ſurpriſed by a tempeſt near rocky coaſts or ſands, what muſt have been their ſituation? They were expoſed to ſee their ſhip ſplit, or at leaſt aground every moment. The leaſt accident they had to fear, was to drive conſiderably. They muſt often have been thrown out of their courſe; for I do not think the Greeks then knew the art of putting many maſts above each other. They could not of conſequence lie near the wind, and land; for it was not poſſible for them when they were once blown under the coaſt, to get from it, and bear off to ſea; the upper ſails being the only ones that could act upon ſuch an occaſion. Laſtly, we do not ſee that they had coaſting-pilots to direct them with reſpect to roads and harbours of difficult acceſs, in the heroic ages. I make no doubt therefore that ſhipwrecks were very frequent in thoſe times. Thus the ancients had pilots in ſuch eſteem, that hiſtory has not diſdained to preſerve the names of many of them. They name thoſe who conducted Theſeus's ſhip into Crete [p].

There is a great deal ſaid in the voyage of the Argonauts of Typhis who was pilot to thoſe famous adventurers [q].

[n] Odyſſ. l. 13. v. 77.

[o] It is for this reaſon that the word λίθος ſignifies, on many occaſions, *an anchor*. See le tréſor de H. Etienne, au mot λίθος.

[p] Plut. in Theſ. p. 7.

[q] Apollod. l. 1. p. 42. & 43.; Hygin. fab. 14. p. 36.

They have not even forgot Anceus who replaced him in that buſineſs [r]. Laſtly, we ſee that Homer ſpeaks with the higheſt encomiums of Phrontis pilot of Menelaus's ſhip [s].

It only remains now to ſpeak of the maritime commerce of the Greeks in the heroic times. It could not have been very conſiderable; theſe people at that time not being in a ſtate to undertake voyages of great extent. I doubt if they knew the ocean; for if they have ſpoke of it, it was as an inacceſſible ſea. It was not till 600 years after the expedition of the Argonauts that the Greeks durſt enter upon it [t]. With reſpect to the Arabian gulf and the Red ſea, they had not navigated them before Alexander.

Beſides, for a nation to give itſelf up to maritime trade, it muſt be either, that the countries which they inhabit produce naturally great riches, or that it be ſupplied by their induſtry. The Greeks, in the times we are ſpeaking of, were neither in the one nor the other poſition. Greece was not rich in minerals; and its ſoil, to be fertile, required great cultivation. Its ancient inhabitants, deſtitute of arts and induſtry, were not able to get from the earth all that it could afford. Thus, they were, in general, very poor [u]. Beſides, they had ſcarce any communication with each other [x]. Deſtitute of natural riches, and the means of ſupplying them, with what could theſe people be able to traffic?

Independent of theſe reaſons, other obſtacles ſtill oppoſed the progreſs of maritime trade in Greece. They had then no ſecurity on the ſeas. They were infeſted with pirates. Without ſpeaking of the Carians, the Phœnicians, and the Tyrrhenians, the Greeks themſelves were addicted to piracy, the moment that they became acquainted with the ſea [y]. They were carried to it by

[r] Apollod. l. 1. p. 49.; Hygin. fab. 14. p. 46.
[s] Odyſſ. l. 3. v. 282. &c.
[t] See Herod. l. 4. n. 152.
[u] Athen. l. 6. c. 4. p. 231. & 232.
[x] See *ſupra*, p. 309.
[y] See Odyſſ. l. 3. v. 72. &c.; Thucyd. l. 1. p. 4.; Strabo, l. 17. p. 1142.

that

that ſpirit of rapine and robbery, which animated them at land [a]. The trade of piracy was not infamous in the heroic times; on the contrary, they made it honourable [b]. Sovereigns themſelves were of the number. Menelaus, in the Odyſſey, does not bluſh to ſay to Piſiſtratus and Telemachus, who admired his riches, that they were the fruit of his maritime expeditions [c]. It was by this way that moſt of the Greek princes had amaſſed great riches [d]. We eaſily ſee what an injury ſuch a licence muſt have been to maritime commerce, and how it muſt have interrupted it.

Minos paſſed in antiquity for the firſt who began to purſue pirates [e]. But it appears, that, in the time of the Argonauts, they took ſtill more efficacious meaſures to ſuppreſs them. Plutarch reports, after an ancient author, that they had then made an order in Greece, which forbade any one to ſend to ſea any ſhips which caried more than five men. Jaſon alone was excepted from this general law. On the contrary, they had given him an expreſs commiſſion to go to ſea with an armed force to deſtroy pirates and robbers [f].

If we could adopt the notions of the celebrated Bianchini, on the motives which occaſioned the Trojan war, it would follow, that at that time the Greeks wanted to have a very extenſive trade, and that, in general, navigation and maritime trade had been the principal object of the politics of theſe people. M. Bianchini, in effect, will have it, that the war of Troy had for its object, not the pretended rape of Helen, but the navigation and free trade of the Ægean and Euxine ſea,

[a] See *ſupra*, p. 314. & 315.

[b] See Thucyd. l. 1. p. 4. & 6.; Feith. antiq. Hom. l. 2. c. 9. p. 192. l. 4. c. 12. p. 498.

[c] The northern nations formerly thought the ſame. They then looked upon piracy as a lawful way of acquiring riches. Bibliotheque anc. & mod. t. 2. p. 256. & 261. &c.

[d] L. 4. v. 90. &c.

[e] Odyſſ. l. 3. v. 301. l. 14. v. 230. &c. [d] Thucyd. l. 1. p. 4.

[f] Clidemus, *apud* Plut. *in* Theſ. p. 8.

Such

Such was, according to him, the true motive which armed the Greeks againſt the Trojans. That expedition, adds he, was not determined by the deſtruction of the Trojan empire, but by a treaty of commerce advantageous to the Greeks[r].

I do think I ought to ſtop to refute ſo ſingular a paradox, which would reduce the Iliad to a mere allegorical ſtory in the oriental taſte. We may freely put this ſyſtem in the number of thoſe which ſpring from a lively and fruitful imagination; but now having the leaſt probability, finds itſelf abſolutely contradicted by all the hiſtorical notions which remain to us about the object and events of the war of Troy.

[r] La iſtoria univerſale, deca 3. cap. 30. p. 452. &c.

BOOK V.

Of the Art Military.

THE epocha we are at preſent employed about, offers for the military art the ſame reſources, as for laws, arts, and ſciences. I ſhall further obſerve, that the following ages do not furniſh us, till ſome time afterwards, with much more knowledge on all theſe objects. With reſpect to the military art in particular, it is certain, that from the heroic ages to the time of Cyrus, we perceive neither change nor progreſs in the manner of making war, among the people of whom I here trace the hiſtory. Thus what we are going to read may fix our ideas about the knowledge the Egyptians, the Aſiatics, and the Greeks had in the military art, for a long courſe of ages.

CHAP. I.

Of the Egyptians.

EGypt, generally ſpeaking, was never a warlike nation. More attentive to make the laws, arts, and ſciences flouriſh, than to exerciſe her people in combats, the military virtues were not thoſe which were cultivated with the greateſt care. Thus it was not by the ſplendor of her arms that Egypt has attracted the attention of poſterity. Yet it muſt be confeſſed, that ſhe has produced ſome conquerors, whoſe exploits do not give place to any of the moſt celebrated heroes of antiquity.

Seſoſtris who aſcended the throne about 1650 years before

fore J. C. [a], has a juſt title to be put in this number. His reign is the epoch of the military glory of the Egyptians. This prince poſſeſſed with the higheſt ambition, propoſed nothing leſs than the conqueſt of the univerſe [b]. He took the neceſſary meaſures to aſſure the ſucceſs of his arms. His firſt care was to regulate the ſtate of the troops. This object apparently had been neglected, or at leaſt ill managed by his predeceſſors, ſince the ancients have regarded Seſoſtris as the author of the rules concerning diſcipline and the military ſervice in Egypt [c]. It is for this reaſon I ſhall refer to his reign what the authors of antiquity have tranſmitted to us on this ſubject.

We perceive, that the maxim of the Egyptians was to keep on foot a numerous militia, divided into two bodies; that of the Calaſires, and that of the Hermotybies. The one amounted to one hundred and ſixty thouſand men, and the other to two hundred and fifty thouſand. The cuſtom was to diſtribute theſe troops into the different provinces of the kingdom [d]. The ſoldiers had no pay, and were forbid to exerciſe any mechanic art [e]. But the ſtate had provided abundantly for their ſubſiſtence. They aſſigned to each ſoldier twelve aruras of land exempted from all taxes and impoſts [f]. They let it to farmers who made the moſt of it, and paid them a certain rent [g].

[a] See *ſupra*, book 1. p. 10. [b] Diod. l. 1. p. 63.
[c] Ariſt. de rep. l. 7. c. 10.; Diod. l. 1. p. 105. & 166.
[d] Herod. l. 2. n. 164. & ſeq. [e] Id. ibid. n. 165. & 166.
[f] Herod. l. 2. n. 168.; Diod. l. 1. p. 85.

Theſe twelve aruras equalled nearly nine acres Paris meaſure. The arura here ſpoken of was a ſuperficial meaſure, which, according to Herodotus, was the ſquare of one hundred Egyptian cubits, or ten thouſand ſquare cubits. The learned are well enough agreed, that the Derach of Cairo, which, according to Grævius, is one foot eight inches $6\frac{2}{11}\frac{2}{11}$ royal lines, is perfectly equal to the ancient Egyptian fathom, and that this meaſure has never been altered. By this account, the arura muſt have been 814 fathoms 28 feet 85 inches $51\frac{2}{11}\frac{1}{11}$ lines ſquared; and of conſequence, 12 aruras equal 9777 fathoms 19 feet 16 inches $36\frac{4}{11}\frac{8}{11}\frac{4}{11}$ lines ſquared. The Paris acre is, we know, preciſely 900 ſquared fathoms; thus nine acres equal 9300 ſquared fathoms. It is plain then, that 122 fathoms 16 feet 127 inches $107\frac{5}{11}\frac{9}{11}$ lines ſquared, and 12 Egyptian aruras equal nine acres Paris meaſure.

[g] Diod. l. 1. p. 85.

It

It was from the Calaſires and the Hermotybies that they drew the prince's guard. It was compoſed of two thouſand men, who were relieved every year. During the year of ſervice, they gave every day extraordinary to each ſoldier five pound of bread, two pound of meat, and about two or three pints of wine [h]. We may judge from this account, that a ſoldier had not only wherewithal to live, but he was even able to maintain a family. For the intention of the legiſlature was to encourage the marriage of the troops, reflecting, that the ſon was obliged to follow the profeſſion of his father [i].

As to military diſcipline, the ancients have tranſmitted to us few particulars on that article. They only acquaint us, that thoſe who quitted their ranks, or were diſobedient to their generals, were marked with infamy. Yet they could be reſtored if they repaired their fault by reſolute and great actions. The maxim of the Egyptians was, That they ſhould leave a ſoldier a way to re-eſtabliſh his honour, and convince him, that he ought to be more ſenſible of that loſs than of life [k]. For the military profeſſion was in high conſideration among theſe people. After the ſacerdotal families, thoſe whom they moſt eſteemed, were, as in France, the families deſtined to arms [l]. We ſee further, that, in the Egyptian armies, the right was the poſt of honour [m].

It reſults from what we have juſt read, that commonly the Egyptian forces amounted to four hundred and ten thouſand men; but when the ſovereign thought proper to augment his troops, or that it was neceſſary to recruit them, it was among the huſbandmen that they took ſoldiers [n]. The hiſtory of Seſoſtris will prove to us, that they had ſometimes recourſe to that expedient.

The army which this monarch levied, anſwered to the

[h] Herod. l. 2. n. 168.
[i] Diod. p. 85.; Herod. n. 166.; Ariſt. de rep. l. 7. c. 10.; Dicæarchus *apud* ſchol. Apollon. Rhod. l. 4. v. 272.
[k] Diod. l. 1. p. 89. [l] Herod. l. 2. n. 168.; Diod. p. 85.
[m] Diod. l. 1. p. 77. & 78. [n] Diod. l. 1. p. 33.

grandeur of his projects. It conſiſted of ſix hundred thouſand foot, twenty-four thouſand horſe, and twenty-ſeven thouſand armed chariots[o], without mentioning a fleet of four hundred ſail equipped on the Red ſea[p].

Seſoſtris having put his army in motion, conducted it to the ſouth ſide, and fell immediately upon the Ethiopians. Having defeated them, he impoſed for a tribute the obligation of bringing to him every year a certain quantity of gold, ebony, and ivory[q]. Returning afterwards to theſe countries, he paſſed[r] into Aſia, whilſt his fleet coaſted it. Every thing ſubmitted to him. But it will be difficult to determine preciſely to what point this conqueror carried his arms in that part of the world. If we would believe certain authors, Seſoſtris paſt the Ganges, traverſed all the Indies, and came to the eaſtern ocean[s]. But this fact appears improbable. Herodotus bounds the extent of the conqueſts of this monarch, on one ſide, to the parts of Aſia ſituated along the Arabian gulf, and on the other, to the eaſtern provinces of the ſame continent[t]; and the teſtimony of this author is of great weight in all that concerns events of that high antiquity. We may add, that the paſſage from Egypt to the eaſtern ocean appears abſolutely impoſſible for ſuch an army as that of Seſoſtris. With reſpect to Europe, the hiſtorians of antiquity agree in ſaying, that Thrace was the bounds of his conqueſts in that part of the world[u].

For the reſt, the expedition of this monarch will ſcarce afford us any light into the manner of making war in his time. The particulars are not known to us. We are ignorant of the means Seſoſtris uſed to reduce ſo readily that infinite number of nations of which the ancients ſpeak. What we know, is, that at that time they made great uſe of armed chariots. They were the principal ſtrength of their armies. We have already ſeen, that the Egyptian monarch had

[o] Diod. l. 1. p. 64. [p] Ibid.
[q] Ibid.; Herod. l. 2. n. 110; Strabo, l. 16. p. 1114.
[r] Diod. p. 64.; Strabo, p. 1114.; Lucan. Pharſal. l. 10. v. 276.
[s] L. 2. n. 102. 103. & 106. [t] Herod. n. 103.; Diod. l. 1. p. 65.

twenty-

twenty-ſeven thouſand. It is alſo ſaid in ſcripture, that they had a great number which Pharaoh raiſed to go in purſuit of the Iſraelites [u]. But this was not a cuſtom peculiar to the Egyptians; it was common to all the people of antiquity.

We have read in the firſt part of this work, that moſt of the ancients attributed to Orus the invention of riding a horſe; and that ſome nations, notwithſtanding, did that honour to Seſoſtris [x]. I then ſaid, that this opinion did not appear to me well founded. I ſhall not repeat here the reaſons which determined me to reject it. I ſhall only add, that thoſe who refer to Seſoſtris the art of riding, have probably interpreted tradition very ill. It ſays without doubt, that this prince had firſt thought of forming a body of cavalry. He had them in effect in his army. In the roll of the troops of Seſoſtris, Diodorus diſtinguiſhes expreſsly the cavalry from the armed chariots [y]. We remark the ſame diſtinction in the deſcription the ſcripture makes of the forces collected by Pharaoh to oppreſs the Hebrews in their flight [z]. I think then we may reconcile the different relations of the ancients, by attributing to Seſoſtris the inſtitution of cavalry in the Egyptian armies. It is perhaps to this novelty, that he was indebted for the quickneſs of his exploits.

Be this as it will, the rapidity of the conqueſts of this monarch prove, that moſt of the people he attacked were very ignorant in the military art. There were neither cities nor fortreſſes to ſtay the progreſs of the conqueror [a]. We cannot doubt of this, when we read the names of the countries ſubdued by Seſoſtris. If this prince had met in his career ſome places fortified a little, and if they had underſtood the art of defending them, he would have employed more than nine years in ſubduing ſo great a number of na-

[u] Exod. c. 14. v. 7. [x] Book 5.
[y] L. 1. p. 64.
[z] All Pharaoh's horſes, his chariots, and his horſemen. Exod. c. 14 v. 23. We likewiſe find in the ancient verſions the words, ἵππος, ὁ ἀναβάτης, *equus & inſidens equo.*
[a] See part 1. book. 5.

tions. Yet it is to this ſhort ſpace that the ancients have limited the duration of his expedition [b]; and the fact is very probable. What we know of the conqueſts of Alexander, Attila, Gengiſcan, Tamerlane, &c. ſhew with what facility a conqueror could anciently over-run the world.

The ignorance they were in at that time of the art of defenſive war, made it very eaſy to ſubſiſt an army as numerous as that of Seſoſtris. I have ſaid elſewhere, that the gaining of a battle opened to the conquerors an immenſe country. They ſeized on all, and the places abandoned by the conquered people enabled them to maintain and ſubſiſt their troops [c]. Though it is very probable, that the army of Seſoſtris was divided into many corps, which marched and acted ſeparately; yet it is ſaid, that for want of proviſions it was thought they would have periſhed in Thrace, and that the conqueror was obliged to return immediately [d]. This circumſtance leads me to think, that Seſoſtris found in theſe countries a reſiſtance which he had not experienced elſewhere. The fact is ſo much the more probable, as the Thracians have always paſſed for one of the moſt warlike nations of antiquity.

It does not appear, that Seſoſtris took any meaſure to preſerve to his ſucceſſors the vaſt countries which had ſubmitted to him [e]. Satisfied with having conquered innumerable nations, this monarch did not think on the means of ſecuring his conqueſts. Thus they had no conſequences. Their duration may be compared to their rapidity. The provinces which the Egyptians came from conquering, were as ſoon loſt as acquired: the vaſt empire formed by Seſoſtris did not deſcend to his poſterity.

If this prince neglected to ſecure his conqueſts, he does not deſerve the ſame reproach with reſpect to his hereditary dominions. On his returning to Egypt, he employed the leiſure which peace afforded him, to ſecure his kingdom from all invaſion. With this view, he fortified the ſide of Egypt which looks to the eaſt, and where the acceſs was eaſy, by

[b] Diod. l. 1. p. 65.
[c] Part 1, book 5. [d] Diod. l. 1. p. 65. [e] Juſtin. l. 1. c. 1.

a wall continued to the length of fifteen hundred ſtadia [f]. This rampart extended from Peluſis ſituated on one of the mouths of the Nile, to Heliopolis, built at the place where the river begins to divide itſelf [g]. Seſoſtris cauſed alſo to be executed many other works which contributed as much to the ſecurity as to the utility of his kingdom. He had cut a great number of canals along the Nile. Theſe works changed the face of Egypt. Before, it was a country open on all ſides, which might be entirely over-run by horſes and chariots. But, by means of this number of canals, Egypt became an intrenched country, and Seſoſtris rendered it almoſt impracticable for carriages, and even for horſes [h].

From the reign of this monarch, to that of Seſac, that is to ſay, for near ſeven hundred years, it is not ſeen that Egypt ſignalized itſelf by any military enterpriſe. It ſeems that the ſpirit of glory and of conqueſt which had animated them under Seſoſtris, was extinguiſhed in a very little time. According to ſome authors, we ſhould throw the blame on this prince himſelf. Apprehending, ſay they, that the taſte for war might inſpire his ſubjects with ſentiments of independence, he endeavoured to find out ways to ſoften their manners, and enervate their courage. They aſſure us, that he ſucceeded only too well in bringing about this fatal change, and that the Egyptians ſoon degenerated [i]. This policy of Seſoſtris was founded on the knowledge that prince had of the character of the people he had to govern. They aſſure us in effect, that the ancient ſovereigns of Egypt had been

[f] From 62 to 63 French leagues. [g] Diod. l. 1. p. 67.

[h] Herod. l. 2. n. 108.; Diod. l. 1. p. 66. & 67.

If we believe Herodotus, Seſoſtris made Egypt abſolutely impracticable for horſes: but this ſentiment does not appear exact; for it would follow, that they would have neglected to breed horſes. Now, on the contrary, we ſee by many paſſages of ſcripture, that, under the Jewiſh kings, there muſt have been a prodigious number of horſes in Egypt, and even that they were very much eſteemed. See 1 Kings c. 10. v. 28. 29.; 2 Chron. c. 12. v. 3.; Iſaiah c. 36. v. 9.; Cant. c. 1. v. 8.

It is better to ſay with Diodorus, that the prodigious number of canals made Egypt very difficult to go over in carriages, and almoſt inacceſſible with cavalry.

[i] Nymphodor. *apud* ſcholiaſt. Sophocl. Oedyp. Colon. v. 318. p. 283. edit. H. Stephan. 1568.

expoſed to frequent revolts, and that at all times they had taken meaſures to defend themſelves, and to prevent conſpiracies and factions [k]. Seſoſtris without doubt thought, that he had need of the ſame precautions, and put them in practice. I ſhall have occaſion to return to this policy of the Egyptian monarchs in the third part of this work [l].

CHAP. II.

Of the people of Aſia.

WE have ſeen in the firſt book, that we are totally ignorant of the events which happened in the Aſſyrian empire during the courſe of the ages about which we are employed at preſent. It is, of conſequence, impoſſible to give any idea of the ſtate in which the military art then was in the greateſt part of Aſia. We can only ſpeak of the nations who inhabited the weſtern coaſts of that part of the world. The invaſion of Paleſtine by the Iſraelites will furniſh us with ſome details and ſome reflections on the manner in which they made war in theſe countries, in the time of Moſes, of Joſhua, and the Judges. I could alſo comprehend under this preſent article, the expedition of the Greeks to Troy. Yet I ſhall only ſpeak of it in the chapter of Greece, leſt I ſhould fall into repetitions which it will be impoſſible to avoid.

Many circumſtances may have already given room to remark, that, among all the nations of antiquity, there have been few whoſe progreſs in the arts and ſciences has been ſo rapid as thoſe of the firſt inhabitants of Paleſtine [m]. The hiſtory of the wars they had to maintain againſt the Iſraelites, will not give us a very great idea of their ſkill in the military art, if we did not know that theſe events

[k] Diod. l. 1. p. 103.; Plut. t. 2. p. 180. A. [l] Book 2. chap. 2.
[m] See part 1. book 4. chap. 2. art. 1.; part 2. book 2. c. 4. art. 2. p. 159. book 4. c. 2. p. 294.

had

had been directed by the decrees of Providence. The Lord had ſtruck all the people of theſe diſtricts, with the ſpirit of terror and blindneſs [a]. It is not then to their cowardice or their ignorance, that we ſhould impute the rapid and continued ſucceſs of the Hebrew people. It appears on the contrary, that theſe nations were very warlike, and that they were not without the knowledge which could then be had of the military ſcience.

We ſee immediately, that the people of Paleſtine had many horſes in their armies [o], a method only known to policed nations. They had alſo a great number of chariots of war [p], and knew perfectly the art of uſing them. The ſcripture obſerves, that the tribe of Judah could not reduce the inhabitants of the valleys, becauſe they had a great number of chariots armed with ſcythes [q]. They then were warlike people, uſed to arms and combats.

I have had occaſion to inſiſt often of the ignorance in which they were formerly in the art of fortifying and defending cities. I have juſt ſaid, that probably Seſoſtris had not met with any fortified places in his expeditions. The invaſion of this prince leads us to make ſome reflections on the inhabitants of Paleſtine. It is in effect in theſe countries that hiſtory offers an example of fortified places. Moſes tells us, that the cities there were defended by very high walls, and by gates ſtrengthened with bars and poſts [r]. It appears further, that they alſo knew, in theſe countries, the uſe of machines proper to overthrow the ramparts of the cities which they beſieged [s]. Yet it is not ſeen, that either in the wars undertaken by Moſes, or in thoſe conducted by Joſhua and his ſucceſſors, there is any mention of ſieges undertaken, and carried on in form, although they very often ſpeak of the taking of cities. Here is what ſeveral paſſages learn us touching the manner which they then uſed to take a place. They laid

[a] Exod. c. 23. v. 7. [o] Joſhua, c. 11. v. 4.
[p] Ibid. [q] Judg. c. 1. v. 19.
[r] Deuter. c. 3. v. 5. [s] Ibid. c. 20. v. 19.

in

in ambuſh; the army afterwards advanced againſt the city: the beſieged went out to give battle, they feigned to give way; and when they had drawn them to a certain diſtance, the corps placed in ambuſh marched to the town, and finding it without defenders, they ſeized on it and ſet it on fire. On this ſignal, the army which gave way, faced about and charged the enemy. The troops which were become maſters of the city, came out of it then, and finiſhed the defeat [t].

I fairly confeſs, I do not comprehend ſuch a manœuvre. How can one ſuppoſe in effect in the beſieged, ſo little forecaſt, as not to leave in the place a body of troops ſufficient to guard it againſt a ſudden aſſault? Beſides, how could one imagine that they ſhould even forget to ſhut the gates? This precaution ſo very ſimple, is ſufficient to put a city out of the reach of ſuch enterpriſes. But I have already ſaid, all theſe events only happened by the ſpecial order of Providence.

A fact that appears to me almoſt as aſtoniſhing, is the ſecurity and tranquillity of the inhabitants of Paleſtine on the march and ſtay of the Iſraelites in their neighbourhood. We do not ſee that for forty years, that the Hebrew people over-ran theſe countries, the neighbouring nations were much diſturbed at it. The greateſt part of them were not informed of the deſign of the Iſraelites, till they ſaw themſelves ready to be attacked. In what part of the known world, could a troop of more than a million of ſouls [u] at this day aſſemble themſelves, without alarming the neighbouring ſtates, or without their ſending to demand the reaſon of their projects? It may be anſwered, that, in theſe remote times, there was none or very little intercourſe among theſe nations. Scarce did the neighbouring ſtates keep up any relation with each other. Thus a nation ſcarce knew the deſigns formed againſt it, till the moment they ſaw the enemy at their gates. The people

[t] Joſh. c. 8. v. 12. &c.; Judg. c. 20. v. 29. &c.
[u] See Numb. c. 1. v. 45. & 46.

were

were always ſurpriſed, and of conſequence almoſt always conquered.

The hiſtory of the wars which are ſpoken of in the books of Moſes, of Joſhua, and Judges, proves the truth of what I have already often repeated, that the gaining of a battle was commonly deciſive in the ages I am ſpeaking of. We there ſee wars finiſhed often in a month, ſometimes even in two or three days. It was becauſe they did not then know the art of making uſe of fortified places. There, of conſequence, remained no way to the conquered to defend their liberty, and to agree with the conqueror after the firſt defeat [x].

I have nothing particular to ſay of the manner in which the Hebrews and the inhabitants of Paleſtine were armed at that time. They uſed all the ſorts of arms which are known to have been uſed among all the people of antiquity. I ſhall remark, in finiſhing this article, that then many people went to war adorned with all their moſt rich and valuable things. The troops of Midian wore rings, pendants, bracelets, and collars of gold. Their camels were adorned with ſtuds, chains, and plates of the ſame metal [y]. This cuſtom, as to what appears, has always ſubſiſted among the eaſtern people, and time has not aboliſhed it [z].

CHAP. III.

Of the Greeks.

THE firſt wars ſpoken of in the Grecian hiſtory, are neither ſufficiently intereſting, nor inſtructive enough to deſerve a particular attention. They were only, to ſpeak properly, the incurſions of barbarians, who had no other view but to ravage the lands, make ſlaves, carry off the flocks,

[x] See part. 1. b. 5. [y] Numb. c. 31. v. 50.; Judg. c. 8. v. 21. 24. & 26.
[z] It ſtill ſubſiſts in all the countries of Aſia.

&c [a]. Their armies were very ſmall, and they had not far to go to meet with their booty. They neither knew how to fortify their frontiers, nor make war in the flat country. One battle commonly decided the quarrel [b]: nothing could then ſtop the conqueror. Anciently the cities in Greece were all open; no works defended the approach; they were not even incloſed with walls [c]. A war was then very ſoon finiſhed. But hoſtilities would recommence without ceaſing; the people were never at reſt; they were always armed. Thus they had formerly neither peace nor ſecurity in Greece [d].

Hiſtory ſpeaks, it is true, of a citadel built in Athens by Cecrops [e]. They pretend, that Cadmus did as much when he laid the foundation of Thebes [f]; and Danaus uſed, ſay they, the ſame precaution when he ſaw himſelf maſter of the throne of Argos [g]. But, according to all appearances, the fortreſſes of Athens, Thebes, and Argos, were inconſiderable. I preſume that they rather ſerved to keep the inhabitants of theſe cities in obedience, than defend them againſt the attacks of their enemies.

Experience inſtructs, and time is a great maſter. The Greeks at laſt ſaw the neceſſity of incloſing their cities, to put them out of the reach of pillage and invaſions. Amphion, who reigned at Thebes about 1390 years before Jeſus Chriſt, was, ſay they, the firſt who thought of providing for the ſecurity of his capital. He ſurrounded it with walls, flanked with towers at proper intervals [h]. This manner of fortifying places, although ſimple, was nevertheleſs the beſt that could be imagined at that time. The jutting towers defended the flank and the parapet of the walls; beſides, they procured to the beſieged the advantage of overlooking their enemy from a ſuperior place, and at the ſame time of being leſs expoſed to their ſtrokes.

[a] See Feith. Antiq. Hom. l. 2. c. 7. ſect. 2.
[b] See Pauſ. l. 9. c. 9.
[c] Thucyd. l. 1. p. 4.; Ariſt. de rep. l. 7. c. 11. t. 2. p. 438. D.
[d] Thucyd. *loco cit.* [e] *Supra*, b. 1. ch. 4. art. 1. p. 17.
[f] Ibid. art. 4. p. 40. [g] Ibid. art. 2. p. 35.
[h] Homer. Odyſſ. l. 11. v. 262. &c.; Hygin. fab. 69. p. 120.

It

It is probable that many princes of Greece ſoon imitated the example of Amphion. But the diſcuſſion of this fact is ſomewhat unneceſſary. I need not give an account of the events which relate to it. I go then to the hiſtory of the war of Thebes, the moſt memorable that happened among the Greek people in the heroic times.

Œdipus, whoſe hiſtory is too well known for me to ſtop to give it, had left his crown to his two children, Æteocles and Polynices. Theſe princes, inſtead of dividing it, agreed to reign a year each by turns. Æteocles, as eldeſt, aſcended the throne firſt. The year being expired, Polynices demanded of him the ſceptre. But Æteocles had found too many charms in wearing it, and refuſed to reſign it. Polynices, enraged, retired to Adraſtus King of Argos. He gained the friendſhip of that prince, and obtained his daughter in marriage, with the promiſe of immediate ſuccours to help him to aſcend the throne. Adraſtus, in effect, began by ſending an ambaſſador to repreſent to Æteocles the rights of Polynices. Æteocles joining perfidy to injuſtice, would have aſſaſſinated the deputy of Argos. Adraſtus, enraged at this ſcandalous treaſon, from that time looked upon the quarrel of Polynices as being perſonal to him, and prepared himſelf to take vengeance. He levied troops, leagued with many princes, and engaged them to march with him againſt Æteocles.

Æteocles foreſeeing, without doubt, that he ſhould ſoon be attacked, had neglected nothing for his defence. He had procured allies, and had collected together a numerous force[i]. The armies, on both ſides, having taken the field, met on the borders of the river Iſmeno. The Thebans gave way on the firſt ſhock, and fled into their city. The conquerors immediately formed the ſiege of it[k]. This is the firſt that is ſpoken of in the Grecian hiſtory.

The Greeks were then very ignorant of that part of the military ſcience. They did not know how to conduct an at-

[i] Apollod. l. 3. p. 150. & 153.; Diod. l. 4. p. 308. &c.; Pauſ. l. 9. c. 9.
[k] Apollod. p. 154.; Pauſ. l. 9. c. 9.

tack [l]. Theſe people only endeavoured, as to what appears, to ſhut up the beſieged, and to hinder them from coming out of the town; and they even did this ill enough. We may judge this from what we find in ancient authors about the diſpoſitions the Argives made to become maſters of Thebes. That city had ſeven gates. The beſiegers, of conſequence, divided their troops into ſeven diviſions, which they placed before each port [m]. We do not find that they then knew the art of drawing lines of circumvallation.

It might be imagined, that at the times of which I ſpeak, the Greeks practiſed the eſcalade, that is to ſay, that to force a place, they applied to the walls a great number of ladders, on which they cauſed many files of ſoldiers to aſcend. We might even go ſo far as to think, that theſe people had, at that time, invented ſome machines proper for the defence of beſieged towns. This ſentiment is founded on the circumſtances of the death of Capaneus, who, willing, ſay they, to ſcale the walls of Thebes, fell down, ſtruck with thunder [n]. But we ſhall ſee in the ſequel, that probably the eſcalade was not uſed among the Greeks, even at the time of the ſiege of Troy, and ſtill leſs machines of war. I think then the ſiege of Thebes was conducted nearly like that of Troy; that is to ſay, that the beſiegers, intrenched in their camp before the city, formed the blockade. The only object, at that time, was, as I have already ſaid, to hinder the beſieged from making ſallies, to ſhut them up, and to cut off their ſuccours and proviſions. Such was formerly the manner of making themſelves maſters of a place.

The conduct of the beſieged anſwered to the attack of the beſiegers. It is ſaid that Æteocles had divided his garriſon into as many bodies as the army of the enemy [o]. The de-

[l] Pauſ. *loco cit.*

[m] Apollod. l. 3. p. 153.; Æſchyl. Sept. *ad* Theb. v. 42. 55. 56.; Eurip. Phœniſſ. act. 3. v. 744.; Pauſ. l. 9. c. 8.; Philoſtrat. Imagin. l. 1. c. 6.

[n] Apollod. l. 3. p. 155.; Eurip. Phœniſſ. act 4. v. 1179. &c.; Diod. l. 4. p. 309.; Pauſ. l. 9. c. 8.

[o] Æſchyl. Sept. *ad* Theb. v. 57. & 58.; Apollod. l. 3. p. 154.; Eurip. Phœniſſ. act. 3. v. 744. &c.

fence

ſence of a town, at that time, conſiſted in making frequent ſallies to try to force the camp of the beſiegers, or at leaſt to intercept their convoys and ſtarve them [p]. They had frequent fights between the two parties [q]. It is to this ignorance in the art of attacking places, that we muſt attribute the extraordinary length of certain ſieges mentioned in antiquity.

As that of Thebes would have held out a long time, the two brothers, Æteocles and Polynices, took the reſolution of terminating their quarrel by a ſingle combat. They fought under the walls of the city, in the ſight of both armies, and were both killed.

Let us ſtop here a moment to reflect on the idea the ancients had of the love and reſpect which they thought due to their country. Nothing was more unjuſt or more blameable than the proceedings of Æteocles againſt his brother. Yet of all the ancient authors who have had occaſion to treat this ſubject, there is not one who has not judged Polynices unworthy the honours of ſepulture, for having troubled the repoſe of his country, and brought into the heart of it an army of ſtrangers [r].

The death of the two brothers did not put an end to the war. Creon, uncle of the two princes, ſeizing on the ſovereign authority, animated the Thebans to revenge the death of their king. The ſucceſs anſwered to their firmneſs and courage. They made ſo well a conducted aſſault, that they overthrew their beſiegers, forced their camp, and cut them in pieces. Adraſtus, ſay they, was the only one who eſcaped from this total defeat [s]. The advantage which the Thebans obtained on this occaſion coſt them very dear; and it is ſince a proverb to ſay, *A Theban*, or *Cadmean victory*, to mean an action where the conqueror was at leaſt as ill treated as the conquered [t].

[p] See Iliad. l. 18. v. 509. &c. [q] See *infra*, p. 354.

[r] Æſchyl. Sept. *ad* Theb. v. 1021. &c.; Sophocl. in Antig. v. 204. &c.; Eurip. in Phœniſſ. v. 1280.

[s] Pauſ. l. 9. c. 9.

[t] Herod. l. 1. n. 166.; Diod. l. 11. p. 412. & 413.; Pauſ. l. 9. c. 9. See in Eraſmus's adagies, *Cadmea victoria*.

The

The firſt war of Thebes was ſoon followed by a ſecond, occaſioned by the barbarous proceedings of Creon. The Argives, in retiring, had left the country all covered with their dead. We know what ideas the ancients had with reſpect to dead bodies that remained without ſepulture. Adraſtus then ſent ambaſſadors to Creon, to demand leave to bury his ſoldiers. Creon had the inhumanity to refuſe it. Adraſtus penetrated with grief, implored the aſſiſtance of the Athenians. They were then governed by Theſeus. This prince, ſenſible of the rights of religion and humanity, marched in perſon againſt Thebes, and forced Creon to let Adraſtus do the laſt honours to his ſoldiers. Some pretend, it was by means of having gained a battle [u]: others, on the contrary, ſay, it was by means of a truce [x]. This is even the firſt treaty which is ſaid to have been made for taking away the dead [y]. We may ſay on this ſubject, that anciently to demand ſuch a permiſſion was to own being conquered.

I ſhall not enter into a detail of the war which the children of thoſe princes who had periſhed before Thebes, recommenced ten years after the firſt. That event does not furniſh any particular inſtruction. I ſhall only ſay, that this expedition ended with the taking of Thebes, and that the conquerors deſtroyed it entirely [z]. I haſten to come to the war of Troy. That enterpriſe, famous on many accounts, deſerves all our attention. The circumſtances of it are moſt proper to let us know how they then made war in Greece and Aſia Minor.

No one is ignorant that it was the rape of Helen which determined the Greeks to carry their arms before Troy. This outrage, to ſpeak properly, only intereſted Menelaus and Agamemnon: but theſe two brothers finding themſelves, at that time, the two moſt powerful princes of

[u] Herod. l. 7. n. 27.; Iſocrat. encom. Helen. p. 310.; Paneg. p. 75.; Euripid. ſuppl. v. 591.; Apollod. l. 3. p. 157.; Pauſ. l. 1. c. 39.

[x] Plut. *in* Theſ. p. 14. A.

[y] Philocor. *apud* Plut. *loco cit.*; Plin. l. 7. ſect. 57. p. 416.

[z] Apollod. l. 3. p. 159.

Greece,

Greece, engaged all the nation to eſpouſe their quarrel [a]. Yet there had already been ſome ſigns of animoſity between the Greeks and Trojans. Tantalus, father of Pelops, and great-great-grandfather of Agamemnon and Menelaus, had carried away, or cauſed to be deſtroyed, Ganymede, great-uncle of Priam. Thus it may be ſaid, that Paris, great-nephew of Ganymede, took away Helen by way of repriſal, againſt Menelaus great-great-grandſon of the raviſher of his great-uncle. It was not therefore difficult to repreſent to the Greeks that attempt as an injury done to the whole nation. This motive determined theſe people to declare war againſt the Trojans [b].

The preparatives were very long. There elapſed about ten years between the taking away of Helen and the departure of the Greeks. We ought not to be ſurpriſed at it. There had not been attempted at that time ſuch an enterpriſe in Greece. This is the firſt time that the nation had leagued in a body to make war [c]. They would therefore aſſemble conſiderable forces. They muſt moreover equip a fleet. We muſt not therefore be ſurpriſed, that the preparations for that armament laſted ten years. That time was employed to unite the forces of the different princes of Greece, and to build twelve hundred ſhips to tranſport their army. Let us add, that the Greeks, going into a very diſtant country, had occaſion to take many precautions. They ought not, in effect, to expect other reſources in Aſia, than thoſe which they could procure by the ſword [d]. The whole forces of Greece aſſembled amounted to near a hundred thouſand men [e]: a ſmall army conſi-

[a] It was not by force nor fear that the princes of Greece followed Agamemnon and Menelaus before Troy, as Thucydides pretends, l. 1. p. 7, Homer ſays the contrary very plainly, Iliad. l. 1. v. 157. & 158. See alſo Pauſ. l. 3. c. 12.

[b] Herodotus, l. 1. *init.* from an ancient tradition makes the ſubjects of hatred between the Greeks and Aſiatics aſcend much higher. But I confeſs, that I find no relation between the facts he alledges, and the motive of the expedition of the Greeks to Troy

[c] Thucyd. l. 1. p. 3. [d] Ibid. p. 9.

[e] I take the calculation of Thucydides, p. 9. See alſo Meziriac *ad* epiſt. Ovid. t. 2. p. 319.

dering

dering the number of kings and nations that were entered into that league [f].

The time which the Greeks had employed to prepare their armament, had given to the Trojans time to put themſelves in a diſpoſition to give them a good reception. Priam had raiſed numerous forces, and was ſtrengthened by the ſuccours of the moſt powerful princes of Aſia. His national troops might have amounted to fifty thouſand men [g]. But thoſe of his allies were much more conſiderable. As to the fortifications of Troy, they conſiſted of an incloſure of walls, flanked with towers of wood [h], and of rails before the gates [i]. It is very ſurpriſing, that that city was not encompaſſed with a ditch. We ſee Patroclus, after having repulſed the Trojans, after a ſmart encounter, aſcend immediately on to the walls of Troy [k]; an action which the poet certainly would not have ſuppoſed, if he had had to have leaped over the ditch, or at leaſt he would have explained it. This fact makes me alſo think, that the walls of Troy were only made of earth. We are, in effect, obliged to give to theſe ſort of works a good deal of ſlope, otherwiſe all would fall down. It was then by favour of the ſlope that Patroclus ſuddenly mounted the walls of Troy: for if it had been by the help of a ladder, Homer, who is ſo exact to give details, would not have omitted that circumſtance [l].

After

[f] Thucydides, ibid. pretends that Greece could have furniſhed a greater number of troops; but the difficulty of ſubſiſting them was the cauſe, ſays he, that they did not carry a greater number. This reaſon appears to me of no weight. I am perſuaded that the Greeks brought into the field all the forces they could raiſe; and if their army was only an hundred thouſand, it was becauſe Greece could furniſh no more at that time.

[g] Iliad. l. 8. v. 562.

We ſhould not mind the diſcourſe of Agamemnon, Iliad. l. 2. v. 126. &c. where he advances, that if the Greeks were placed at table, ten and ten, and they took for each ten a Trojan for a cupbearer, there would be more tens than were wanted. This is an exaggeration that the poet puts in the mouth of Agamemnon, to encourage the Greeks, and undervalue the Trojans.

[h] See Virgil. Æneid. l. 2. v. 460. &c.

[i] Iliad. l. 3. v. 153. l. 21. v. 537. [k] Ibid. l. 16. v. 702.

[l] The expreſſion Homer uſes to paint this action of Patroclus, ſuffices, as far

After a long and difficult navigation, the Greeks landed at the promontory Sigeus. The deſcent was not made without oppoſition from the Trojans. They gave them a bloody combat. The Greeks were victorious. They made good their landing; eſtabliſhed themſelves on the coaſt; formed their camp, and intrenched themſelves [m].

I know not how to define the enterpriſe of the Greeks againſt Troy. They propoſed to themſelves to take that city; yet I ſee no plan, no deſign in their conduct. We do not find in the recital the ancients have made of that famous event, any circumſtance which characterizes a ſiege. We do not ſee the Greeks form any diſpoſitions to approach the place, and ſtill leſs to attack it. They do not open trenches; they do not make uſe of the ſap, nor even of the eſcalade. As to machines of war, Homer never ſpeaks of any; he, who, on other occaſions, is ſo full in treating of every thing that concerns the art-military. Laſtly, it appears that the Greeks had not even taken the precaution of reconnoitring Troy. Chance alone had ſhewn to them the weak or ſtrong parts of the town [n].

It is equally difficult to diſcover, in their operations before Troy, the blockade of a city. They did not draw lines of circumvallation, they did not diſpoſe a body of troops round the place; in a word, they did not make any of the manœuvres, or conduct any of the works proper and neceſſary to ſhut up the beſieged in their walls. Troy was never inveſted. The proof is, that, during the ten years the Greeks were incamped under its walls, we do not find that they ever wanted proviſions. But farther, the foreign ſuccours which came to the Trojans entered freely into the town. The camp of the Greeks was very diſtant from it [o]. The ſpace was ſo great, that the armies had more ground than

far as I think, to prove the ſentiment I advance. He ſays, that this hero aſcended ἐπ' ἀγκῶνος τείχιος.

Let us obſerve further, that Homer, on another occaſion, gives the name of *wall* to a ſimple rampart of earth. Iliad. l. 20. v. 145.

[m] Thucyd. l. 1. p. 9. [n] See Iliad. l. 6. v. 435.

[o] Iliad. l. 3. B. v. 318. &c. l. 5. v. 791. & *paſſim*. See alſo Strabo, l. 13. p. 893.

was neceſſary to range themſelves on both ſides in the order of battle. Thus there is no mention in the Iliad, but of combats which the two parties engaged in daily. The Trojans advanced very far from their walls. The Greeks came out of their intrenchments, and went to meet them in the plain. It was then that they joined battle. Let us repreſent to ourſelves two armies, one incamped under the walls of a place, and the other intrenched at a great diſtance, coming out reciprocally, and we ſhall have a very juſt idea of the poſition of the Greeks and Trojans. We ſhall very eaſily comprehend how Troy might reſiſt for ten whole years the efforts of all Greece aſſembled before its walls. The forces were nearly equal; and there had been, to ſpeak properly, no attacks made by the Greeks. They were at that time entirely ignorant of the art of forming ſieges; and if they became at laſt maſters of Troy, it was only by means of a groſs ſtratagem [p], and which had not yet ſucceeded but by a notorious treaſon [q].

We muſt then lay aſide all ideas of a ſiege; it would be very improper to characterize ſo the expedition of the Greeks before Troy. Theſe people, as we have juſt ſeen, had then no notion of that part of war. Let us only examine their knowledge with reſpect to other objects of the military art.

I begin by incampments; and I ſay, that that art was not unknown to the Greeks in the heroic times. The diſpoſition of their camp before Troy, appears in general well enough ordered. The circumference was conſiderable; for it is ſaid, that not only the troops went into it, but they alſo ſhut up there all their fleet. Theſe people at that time uſed to draw their ſhips on land, when they knew

[p] This is what we ought to think of the famous wooden horſe, and this is alſo the idea Homer has given us of it. Odyſſ. l. 4. v. 272. In vain will ſome writers, greatly poſterior to this poet, find in this circumſtance, the image of a machine of war proper to overturn the walls of a city. The ſilence of Homer on this head confutes all their conjectures. See alſo Bannier, explicat. des fabl. t. 7. p. 280.

[q] It appears plain enough to me, that Æneas and Antenor betrayed their country to the Greeks. See Dionyſ. Halic. l. 1. p. 37.; Dictyſ. Cret. l. 4. c. 22.; Pauſ. l. 10. c. 27. p.

that

that they were not to uſe them for ſome time [r]. The promontory Sigeus, where the Greeks had landed, being found too narrow to range in front the twelve hundred ſhips which compoſed their fleet, they diſpoſed them into two lines. Their ſhips which had been landed firſt, were advanced towards the city, and made the firſt rank. They put in the ſecond thoſe which came the laſt. They almoſt touched the ſea [t].

The troops incamped in the interval formed by theſe two lines [u]. In the centre, they left a large ſquare for the ſutlers. They rendered juſtice in the ſame place. They alſo raiſed there altars deſtined to the worſhip of the gods [w]. The army marched under different chiefs, of whom Agamemnon was the generaliſſimo. Each chief had his quarter marked and diſtinct [x]. Laſtly, the camp of the Greeks was intrenched, as well to ſecure their ſhips from the attacks of the enemy, as not to be ſurpriſed themſelves by the Trojans who often came to inſult them even to their very tents. Theſe intrenchments conſiſted in a rampart of earth, flanked from ſpace to ſpace with towers of wood [y]. The work was defended by a large and deep ditch lined with paliſadoes. They had there made different ports, that the troops might go in and out eaſily [z].

The army incamped under tents, or rather under barracks, ſuch as Homer deſcribes that of Achilles [a]. They kept an exact guard. The Greeks not only uſed to place

[r] See *ſupra*, b. 4. ch. 4. p. 328.

[t] Iliad. l. 14. v. 30. &c. l. 9. v. 43. & 44.

[t] Ibid. l. 15. v. 652.

[u] Ibid. l. 11. v. 805. &c. compare it with l. 8. v. 222. &c.

[w] Iliad. l. 8. v. 222. &c.

[x] The proof that Homer meant only a rampart of earth, and wooden towers, is; that the whole work was finiſhed in a day. l. 7. v. 475.

Farther, we ſee Sarpedon, on a certain occaſion, forcing the Grecian camp, takes hold of one of the battlements of the wall in queſtion; and pulls it with all his ſtrength. The battlement gave way to the ſtrength of the hero; he prevailed by throwing down a part of the wall, in which he made a breach wide enough to receive many in front. l. 12. v. 397. &c.

Homer certainly would not have allowed of ſuch a fiction, if the wall built by the Greeks had been of ſtone work.

[z] Iliad. l. 7. v. 436. &c. l. 12. v. 36.

[a] Ibid. l. 24. v. 448. &c. The poet often calls theſe barracks *huts*. Ibid. v. 471. & 673.

centinels, but even to eſtabliſh advanced guards [b]. Homer remarks the neglect of this precaution by the Trojans, as a ſign of their want of diſcipline [c]. They alſo uſed to light up great fires during the night [d]. They took that opportunity to ſend their ſpies to examine the proceedings of the enemy [e].

We ſee that the Greeks, in the heroic times, were armed nearly in the ſame manner as the greateſt part of the people of antiquity. They had for offenſive arms a club, a hatchet, a ſword, arrows, a javelin, and a ſling [f]. Let us add to this the pike which they uſed in two different manners; for ſometimes they threw it at a diſtance like a javelin [g], and ſometimes they uſed it like a ſword to fight near and hand to hand [h]. If we refer to the writers of antiquity, it is from the Cretans that the Greeks had learned the uſe of arrows [i]. Theſe people were even ſaid to have invented the ſword [k]. It is not eaſy to explain the manner in which the Greeks carried this laſt arm. As far as one can conjecture, it was ſuſpended by a ſort of belt which went over both their ſhoulders. This belt muſt have been like a porter's ſling; it was faſtened by means of a hole which claſped before, below the cuiraſs [l]. The ſword reſted againſt the thigh [m].

The defenſive arms were the ſhield, the cuiraſs, the helmet, and buſkin-boots of metal to guard the thighs [n]. Herodotus pretends that the Greeks had received from the

[b] L. 9. v. 66. [c] L. 10. v. 416. & 417.
[d] L. 8 v. 662. [e] L. 10. v. 204. &c.
[f] L. 13 v. 716. 599. 612. l. 15. v. 711. l. 7. v. 141.
The Greeks did not think much of the troops which uſed ſlings. *Xenoph. Cyrop.* l. 7. p. 149.; Q. Curt. l. 4. c. 14. p. 232. Let us remark, that Homer never gives one to his heroes.
[g] Odyſſ. l. 8. v 229.
[h] Iliad. l. 2. B. v. 50. See Strabo. l. 16. p. 688. & 689.
[i] Diod. l. 5. p. 282 ; Pauſ. l. 1. c. 23.
[k] Diod. l. 5. p. 362.; Iſidor. origin. l. 14. c. 6.
[l] Iliad. l. 16. v. 135. l. 4. v. 132. & 133.; Odyſſ. l. 2. v. 3.; Heſiod. Scut. Hercul. v. 221. &c.; Virgil Æneid. l. 8. v. 459.
[m] Iliad. l. 1. v. 190. l. 5. v. 516.; Odyſſ. l. 9. v. 370. l. 11. v. 48.; Virgil. Æneid l. 10. v. 786. &c.
[n] Feith. antiq. Hom. l. 4. c. 8.

Egyptians

Egyptians the ſhield and the helmet [o]. In the beginning theſe arms were only made of the ſkins of animals [p]; they learned afterwards to make them of metal.

I have nothing to ſay in particular of the ancient Greek helmets; but it is not the ſame with ſhields. We ſee immediately that they were of aſtoniſhing ſize, being almoſt as high as a man [q]. But what I can no way comprehend, is the manner in which the Greeks carried that arm in the time of the war of Troy, and the uſe they could make of it. It appears very plain, that then they did not carry their ſhield on their arms. It was fixed to their neck by a ſtring, and hung over the breaſt. When they uſed it in fight, they turned it on their left ſhoulder, and ſupported it with their arm. To march they caſt it upon their back, and then it hit againſt their heels [r]. I freely own, that I cannot conceive from this deſcription how they could uſe this ſhield. This arm muſt have been of little uſe, and have cauſed a great deal of trouble and inconveniency on account of its immenſe ſize. How could a ſoldier fight? He was ſcarce able to move. He could not have free motions. Beſides, they loſt the principal uſe of the ſhield, which appears to me to have been particularly deſtined to guard off the ſtrokes which threatened the head.

[o] L. 4. n. 180.

By means, without doubt, of the different colonies which paſſed ſucceſſively into Greece, in the moſt early times. We find, in effect, a great conformity between the ſhields of the Egyptians and thoſe of the Greeks in the heroic times. See Bochart, Phaleg. l. 4. c. 33. p. 334. & 335.

Yet they have different traditions on this ſubject in Greece. See Apollodor. l. 2. p. 67. & 68.; Diod. l. 5. p. 382.; Plin. l. 7. ſect. 57. p. 415.

[p] Their name even means it. The Latin word *ſcutum, ſhield,* comes from the Greek word σκύτος, which ſignifies of ſkin. The ancient ſhields were almoſt always made of the ſkin of an ox.

Galea, helmet, comes from γαλῆ, which means *weaſel,* becauſe the firſt helmets were made of the ſkin of that animal. See Euſtath. *ad* Iliad. l. 3. v. 336. p. 421. lin. 8.

[q] Iliad. l. 6. v. 117. 118. l. 16. v. 802. l. 7. v. 219.; Tyrtæus, carm. 11. v. 27. &c.; Schol. ad Iliad. l. 2. v. 389.: Bochart, Phaleg. l. 4. c. 33. p. 334. & 335.; Feith. l. 4. c. 8. § 4. Animadv. p. 78.

[r] Iliad. l. 2. v. 388. 389. l. 5. v. 796. 797. &c. l. 12. v. 294. l. 14. v. 404. 405. l. 15. v. 479. l. 16. v. 106. l. 20. v. 261. 262. & 278. l. 6. v. 117. l. 11. v. 544.; Herod. l. 1. n. 171.

We

We are ignorant in what time the Greeks gave over carrying their ſhields in ſo unnatural and diſadvantageous a manner. We only know, that the Carians, a very warlike people, changed this whimſical and groſs cuſtom. They ſhewed the Greeks to carry their ſhield, put on the arm by means of leather made in the form of handles, which they found out the art of fixing to them [r].

With reſpect to helmets, it appears that they gave to them anciently a different form from that which was uſed in the war of Troy [s]. I ſhall not ſtop to give the particulars. I finiſh by obſerving, that, at that time, moſt of the arms were made of copper. Cadmus was, ſay they, the firſt who introduced that knowledge into Greece [t]. We know that the ancients had the art of hardening copper by tempering it [x]. As they were very ignorant in theſe early ages in the art of working iron, that metal was employed for very few uſes.

Plutarch obſerves, with great reaſon, that Homer repreſents his heroes always well armed [y]. They did not raſhly expoſe their life. As to the ſoldiers, the officers paid great attention to viſiting their arms [z]. They took care alſo to make the troops eat before they led them to combat [a].

I do not think that the Greeks in the heroic times had any method, any rule to divide and diſtribute into different bodies, the number of men which compoſe an army. By the reports of ſome hiſtorians, Mneſtheus, who commanded the Athenians before Troy, paſſed for having firſt found out the art of forming the troops into battalions and ſquadrons [b]. But this fact appears to me very improbable. We do not ſee in Homer, that the Greeks then knew this

[r] Herod. l. 1. n. 171.; Strabo, l. 14. p. 976.; Scholiaſt. Thucyd. l. 1. p. 6. note 6.

[s] Pauſ. l. 10. c. 26.

[t] Conon, narrat. 37. *apud* Phot. p. 445.; Bochart. Chan. l. 1. c. 19. p. 487. & 488. See alſo *ſupra*, b. 2. ſect. 2. chap. 4. p. 218. & 219.

[x] See part 1. b. 2 chap. 4. p. 159. [y] *In* Pelopid. *Init.*

[z] Iliad. l. 14. v. 381. & 382.

[a] See Feith. antiq. Hom. l. 4. p. 511. Animadverſ. p. 81.

[b] See Meurſ. de regn. Athen. l. 2. c. 8.

practice.

practice. This poet never uſes any term to make us underſtand ſo much [c]. Neither do we find the different ranks of officers ſpoken of by latter writers. The perſonages whom Homer introduces on the ſcene, appear all equal in authority. I ſay nothing of uniforms. That is an inſtitution abſolutely modern.

As to the manner of ranging the troops in battle, the Greeks, from the time of the war of Troy, had ſome principles on this ſubject. Neſtor and Mneſtheus are celebrated by Homer as two very experienced captains in the art of ranging an army in battle [d]. We find in the Iliad the model of two different diſpoſitions. In the firſt, Neſtor places the cavalry at the head, that is to ſay, the chariots in which conſiſted what Homer then called cavalry. The infantry was ranged in the rear of the chariots to ſupport them. Neſtor placed in the centre his worſt troops, to make thoſe ſoldiers fight they had the leaſt opinion of. The orders which the general gives to the cavalry, are to keep in their horſes, to march in good order, and without mixing or confounding the ranks. He recommends above all to the conductors of chariots, not to value themſelves for advancing before their comrades in charging the enemy firſt [e].

On another occaſion, on the contrary, we ſee the infantry placed in the front; the cavalry, ſupporting them, by being placed in the rear of the battalions [f]. Homer gives us to underſtand, by the model of theſe two diſpoſitions, that, at the war of Troy, the Greeks were inſtructed enough in the tactic, to know that they ought to range the troops differently, according as the ground was more or leſs open. Theſe people, moreover, uſed to place their ranks very cloſe [g], taking care nevertheleſs to leave ſpace enough between the files for the chiefs to paſs eaſily [h].

[c] He never uſes but the vague and general word Φάλαγξ.
[d] Iliad. l. 2. b. v. 60. &c.
[e] Ibid. l. 4. v. 297. &c. See Feith. antiq. Hom. p. 512.
[f] L. 11. v. 51.
[g] L. 13. v. 130. &c. l. 16. v. 211. & 215. [h] Iliad. *paſſim.*

Homer

Homer repreſents to us the Greeks keeping a profound ſilence to the moment they engaged, and the Trojans puſhing on giving great ſhouts [i]. This practice of giving great ſhouts in going to battle, was uſed among many nations of antiquity [k]. It ſtill ſubſiſts in many countries. The Turks, and all the eaſtern people, give horrible ſhrieks the inſtant they are going to the charge.

It was a point of honour in theſe early times, to ſeize on the arms and the body of the conquered enemy. We find many examples of this way of thinking in Homer [l], and in other Greek writers [m]. Thus the firſt care of the ancient heroes, when they perceived themſelves mortally wounded, was to recommend themſelves to thoſe in whom they moſt confided, not to leave their arms nor their body a prey to the enemy. The fear of being abandoned gave them the greateſt uneaſineſs. Sarpedon, on breathing his laſt, appears to be ſolely taken up with this thought [n]. Night always put an end to the combat [o]; a cuſtom which ſeems to have been generally obſerved among the ancient nations.

It would be difficult to repreſent even tolerably the ideas Homer had of a general action. Although this poet makes frequent deſcriptions, yet we can neither diſtinguiſh conduct nor effect. He preſents no plan, and offers no well-concerted or rational attack. Homer indeed ſpeaks of the order of battle [p]; but we never ſee the application. We do not ſee the manner in which the troops joined and fought. We do not ſee the motion of the different corps which compoſe an army. We do not know whether the troops charged all at one time, or by diviſions. No evolutions, no rational movements during the action. Laſtly, no manœuvre nor any operation ariſing from the genius of the general. The chiefs fought as much as the ſoldiers, and were more in the fray. They ſeem to have been buſied about nothing

[i] Iliad. l. 3. v. 2. & 8. l. 4. v. 429, &c.
[k] See Feith. l. 4. p. 516. & Animadverſ. p. 82.
[l] Iliad. *paſſim.*
[m] See Herod. l. 7. n. 224. & 225. l. 9. v. 22. & 23.
[n] Iliad. l. 16. v. 495. &c.
[o] Feith. l. 4. p. 519. 520. & Animadverſ. p. 82.
[p] *Supra*, p. 359.

but

but to fight themſelves. Their merit conſiſted leſs in being able to command a troop well, than in killing a great number of enemies. Thus the battles deſcribed in the Iliad only preſent us with combats hand to hand; three or four perſonages on the one ſide and the other, ſtrewing terror and overturning the whole army. Our Amadis's and our Rolando's could not have done more.

Beſides, how can we conceive theſe long converſations which very often two heroes, enemies to each other, have together on the field of battle, the moment in which the troops are moſt eager for the combat[q]? Theſe facts are entirely repugnant to the idea we now have of a general action. Has Homer been directed in his deſcription of battles by what they practiſed in the time of the war of Troy, or has he drawn it from pure imagination? That is what I am ignorant of.

There is often mention made of cavalry and horſe in the combats of the Iliad, yet we ought not to be deceived by this. By the term *cavalry*, Homer did not underſtand cavalry ſuch as we have at this time in our armies, nor ſuch as the Greeks had in times poſterior to the war of Troy. The word *cavalry* in this poet, only means chariots drawn commonly by two horſes, and with two men in them. With reſpect to horſemen, they had none in the Greek armies, nor among thoſe of the other nations of which Homer ſpeaks, in the heroic ages. Not that the art of riding was then unknown in Greece. I do not preſume it. That knowledge had been brought there very anciently by the colonies which came from Egypt and Phœnicia, countries where riding was uſed in the moſt early times[r]. But the method of making uſe of horſemen in war, and the art of forming them into a body of troops, was unknown to the Greeks in the heroic times. The only manner of uſing horſes at that time among theſe people, was to put them to chariots, whether

[q] See Iliad. l. 6. v. 119. &c. l. 13. v. 248. l. 20. v. 177. One might cite many other examples. [r] See part 1. b. 5.

to go to battle, or to go a-journey[t]. This is a fact atteſted by all the writers of antiquity[u].

It is aſtoniſhing to ſee, that the Greeks, and many other nations, were ſo long a time without knowing the uſe of cavalry. What! did they not perceive the inconveniencies of armed chariots? Theſe machines occaſioned great expenſe as well for their conſtruction, as their maintenance. Beſides, of the two men who were on each chariot, only one fought, the other conducted the horſes: of two men there was one then entirely loſt. Beſides, they had chariots drawn not only with three, but even with four horſes, for the ſervice of one ſingle perſon[x]: another loſs equally ſenſible. Laſtly, a ditch, a gutter made by a flood, an hedge, the inequality of the earth, might render all this apparel and all this expenſe abſolutely uſeleſs; inconveniencies to which cavalry are much leſs expoſed.

It was the little knowledge they had formerly of the military art which made them continue ſo long the uſe of chariots in their armies. They did not then know how to take the advantage of ground, nor to make war in an incloſed and irregular country. They commonly choſe to fight on a large and extenſive plain. Time and experience having made theſe people more knowing in the art of war, they perceived the diſadvantages of chariots. Then policed nations entirely left them off, and ſubſtituted cavalry; but that reform was very late.

It ſeems, in the heroic times, they uſed to barb the horſes deſtined for the uſe of the chariots of war[x]. But I do not think, that they then knew the art of ſhoeing them. Not any paſſage in Homer gives us to underſtand as much[y]; and it

[t] See Odyſſ. l. 3. v. 475. & 476.

[u] See Diod. l. 5. p. 346. & 367.; Pollux, l. 1. ſegm. 141.

[x] Iliad. l. 8. v. 185.

[x] This is what may be conjectured from ver. 156. & 157. of the ſecond book of the Iliad, where Homer ſays, *that the plain ſhone with the brightneſs of the braſs which covered the men and horſes.*

[y] Euſtathius, and after him Mad. Dacier, ſay, that the horſes were ſhod in the time of the war of Troy. They ground their opinion on verſes 152. & 153. of the

it is to be obſerved, that Xenophon, from whom we have a particular treatiſe of the manner of feeding and managing horſes, does not ſpeak of ſhoeing [z]. If in the time of Xenophon they did not yet ſhoe their horſes in Greece, it is a proof that this practice was not introduced there till long after the heroic ages. This fact moreover ought not to appear extraordinary. There are at this time many nations who do not uſe to ſhoe their horſes [a].

The Greeks anciently had no military inſtruments to ſound the charge, animate the troops, beat marches or retreats. There is no mention in the Iliad, of trumpets, of drums, nor of kettle-drums. Homer indeed ſpeaks of the trumpet, but it is only by way of compariſon [b]; and we ſhould diſtinguiſh in this poet, what he ſays of his own authority, from what he reports as an hiſtorian. As a poet, he often uſes compariſons drawn from cuſtoms poſterior to the war of Troy. But as an hiſtorian, Homer, a wiſe obſerver of *cuſtoms*, does not incroach upon the times; and it is for this reaſon, that he does not give trumpets to the Greeks nor to the Trojans. He ſays only, that there was heard in the camp of the laſt, the ſound of flutes and of pipes [c]. It is then certain, that the Greeks, in the heroic times, had not yet the uſe of the trumpet, nor of any other military inſtrument. Thus it was, at that time, a very deſirable quality, and a very neceſſary one, in a commander to have a very ſtrong and very loud voice. The talent of making yourſelf be underſtood at a great diſtance, was

the ſecond book of the Iliad. Homer ſays there, as they pretend, that the horſes *ſtrike the ground with their braſs*, κελαδῶ δμιδωντες. But Euſtathius and Mad. Dacier have not conſidered, that the participle δμιδωντες relates to the nominative πεζοι and ἱππῆς of verſes 150. & 151. The ſenſe then is, that the Greeks put the Trojans to flight by ſtriking them, ſays the poet, with the braſen arms they had in their hands. See the remark of the ſcholiaſt on verſe 153.

[z] See alſo les mem. de Trev. Janv. 1713. p. 171.

[a] Voyage de V. le Blanc, part 2. p. 75. & 81.; Kæmpfer, hiſt. du Jap. t. 2. p. 297. & 298.; Lettr. édif. t. 4. p. 143.; Tavernier, t. 1. l. 2. c. 5.; Hiſt des voyages, t. 3. p. 182.

[b] Iliad. l. 18. v. 219. [c] Ibid. l. 10. v. 13.

formerly even ſo eſtimable, that Homer makes it a ſubject of praiſe for Menelaus [d].

Colours, an invention ſo uſeful to conduct and rally the troops, were equally unknown, in theſe ages, to the Greeks and to the Trojans. Homer never ſpeaks of them; and it would not have been ſo, if their uſe had been at that time eſtabliſhed. They had not invented the practice of giving to the troops a certain word by which the ſoldiers of the ſame party might know each other, and rally themſelves [e]. The ſurpriſes which Homer and Virgil ſo often ſpeak of, are a proof of it.

From all theſe facts, combined and compared together, it reſults, that, at the time of the war of Troy, the military art was ſtill in its infancy among the Greeks. They had then no idea of the art of making war. The uniformity which reigns in the operations and in the manœuvres deſcribed by Homer, prove it ſufficiently. The Greeks did not even know the ſecret of ſtarving an enemy in a place, and of cutting them off from all communication from without [f]. The art of making war conſiſted, in theſe remote times, in ſurpriſing a party, and contriving properly an ambuſcade [g]. We ſee by many places in the Iliad, that the Greeks had a high opinion of theſe ſort of manœuvres [h]. We will at preſent ſay a word or two of their military diſcipline.

We do not clearly ſee the cuſtoms the Greeks anciently followed with regard to levying troops. Neſtor indeed ſays in the Iliad, that he had been ſent with Ulyſſes, by A-

[d] He gives to this prince the epithet βοὴν ἀγαθός, the proper ſignification of which is, that Menelaus had a very proper voice to make himſelf underſtood. Iliad. l. 2. v. 408.

I do not doubt, but the ſenſe in which I take this epithet, will not appear juſt to many perſons. It is commonly explained by *valiant, intrepid*; but why may not this epithet be taken literally? Was it not at that time a very commendable quality in a commander to have a voice capable of making himſelf be underſtood even in battle?

[e] Plin. l. 7. ſect 57. p. 416. ſays indeed, that Palamedes had invented all theſe methods. But the opinion of Pliny, who, on this article, has only collected different traditions true or falſe, cannot balance the ſilence of Homer.

[f] See *ſupra*, p. 353. [g] See Iliad. l. 18. v. 513. & 520. &c.

[h] L. 1. v. 227. l. 13. v. 277, &c.

gamemnon,

gamemnon, to raiſe ſoldiers all over Greece; but Homer does not explain himſelf about the means theſe two princes employed to do it [j]. We only know that each family was obliged to furniſh a combatant, and that it was chance which decided who ſhould go [k]. They were not allowed to exempt themſelves. Thoſe who refuſed to be in arms, were condemned to a fine [l]. It further appears, that the Greeks went very young to war [m].

It is certain, that in theſe remote ages the ſoldiers had no pay [n]. They ſerved at their own expenſe and charges. The only indemnity which they could hope for was their part of the booty; for then it was not permitted them to pillage for their ſole uſe. They could not appropriate to themſelves any ſpoil of the enemy. Every thing was brought with great exactneſs to the common ſtock. The diviſion of them was made from time to time among the whole army, with the greateſt exactneſs poſſible. The chiefs had a much larger ſhare than the common ſoldiers [o].

I have had occaſion to remark elſewhere, that the authority of the ancient kings of Greece was not deſpotic. It was tempered by the concurrence of the people and the grandees of the ſtate [p]. We recogniſe the ſame ſpirit of government in the order and the diſcipline of the Greek armies. Agamemnon, although generaliſſimo of the troops, had not an abſolute authority. He had indeed the inſpection of all the chiefs, and of the whole army. He commanded the troops on the day of action, and then he had the power of life and death [q]. But in every thing elſe his

[j] Iliad. l. 11. v. 769. &c.

[k] Ibid. l. 24. v 400. [l] L. 13. v. 669. l. 23. v. 297.

It may be conjectured from this laſt paſſage, that, at the time of the war of Troy, it was already ſettled that they could be diſpenſed with from ſerving, by providing a man, or even a horſe that they were to furniſh.

[m] Iliad. *paſſim.*

[n] See Suid. *voce* Ἐν Καρὶ, &c. t. 1. p. 749.; Potter, Archæolog. l. 3. c. 2. p. 432.

[o] Feith. antiq. Hom. l. 4. c. 16. p. 529.

[p] *Supra*, b. 1. ch. 4. art. 7.

[q] Iliad. l. 2. v. 391. &c.

Ariſtotle,

his authority was very limited. The prince could decide nothing by his own will. He was obliged to assemble a council, and to follow the plurality of voices. The military discipline of the Greeks, in the heroic times, presents a continual mixture of monarchy, of aristocracy, and democracy.

We may distinguish in Homer three sorts of councils of war. The public and general council, where all the troops being assembled, each of the chiefs declared the subject on which they were to deliberate. The second book of the Iliad offers an example of these public deliberations. Agamemnon, to sound the disposition of the Greeks, proposes to the whole army to reimbark, and renounce the project of taking Troy. In the ninth book, the prince makes such an assembly of the troops, to represent to them, that the only part that remains to be taken, is readily to regain Greece. It appears, moreover, that all the chiefs of the army indifferently had a right to assemble the troops for the council [r].

There reigned a very great liberty in these public councils. Every one there might say what he thought. Agamemnon himself was obliged to bear even the highest insults spoke to his face without any respect. Achilles does not spare him in the general assembly which that young hero had convoked on account of the plague which afflicted the Grecian camp. In that which is held in the ninth book of the Iliad, which I have just now spoke of, Diomede begins his discourse to Agamemnon, by saying, that he opposes the senseless advice given by that prince, and avails himself for that purpose of the liberty allowed in public assemblies; and afterwards he adds, indeed, Jupiter had given to Agamemnon a sceptre above all sceptres; but that that god at the same time had refused him strength and

Aristotle, in quoting this passage, de republ. l. 3. c. 14. adds half a verse which no longer appears in our copies. It makes Agamemnon say,

Πας' γαρ εμοι θανατος. *For I have power over the life of those who disobey me.*

[r] See Iliad. l. 1. v. 54.

courage,

courage, whoſe empire was ſtill more grand and glorious. Diomede, laſtly, finiſhes his diſcourſe by ſaying to that prince, that he was maſter of his return if he pleaſed, and that the roads were open to him [r].

The public and general council could not be aſſembled on every occaſion which preſented itſelf to deliberate on any proceeding. They then held a particular council compoſed of the chiefs of the army. They there determined what they ſhould do in the preſent circumſtances; ſuch, for example, as that in which the Greeks found themſelves in the tenth book of the Iliad, when they were beſieged in their camp by the Trojans. Agamemnon aſſembles the chiefs of the army, and deliberates with them about the meaſures they had to take in that critical ſituation.

They had, laſtly, the private council which they held commonly in Agamemnon's tent. They admitted there none but chiefs of conſummate prudence and experience. The young ones were excluded from it [s]. It is to be remarked, that, in Homer, the deliberations of the Greeks are generally accompanied with a repaſt. It was often even at table that they took the moſt important reſolutions [t].

We have a glimpſe in Homer, of ſome ſigns of military puniſhments and recompenſes. Agamemnon, in giving his orders for the combat, in the ſecond book of the Iliad, threatens to give as a prey to dogs and birds, all thoſe who ſhall be found in their ſhips far from the fray [x].

With reſpect to military rewards, they were proportioned to the groſſneſs of theſe remote times. Agamemnon, to encourage Teucer, one of the principal chiefs of the army, promiſes him, after the taking of Troy, that he ſhall have for the price of his valour, either a tripod, or a chariot drawn by horſes, or, laſtly, a woman, the poſſeſſion of whom ſhall pleaſe him [y]. We ſee likewiſe, that on certain occa-

[r] Iliad. l. 9. v. 32. &c.
[s] Ibid. l. 9. v. 89. l. 2. v. 53.
[t] See Feith. l. 3. c. 5. p. 308.
[x] V. 391, &c.
[y] Iliad. l. 8. v. 289. &c.

ſions

ſions they rendered a particular honour to heroes who ſignalized themſelves by ſome great exploit. This honour conſiſted in giving them, at their feaſts, a very large ſhare of the victuals [c].

Homer has not directly explained himſelf about the meaſures the Greeks took to get proviſions for their army, while they were before Troy. Thucydides ſays, that they had ſent into the Cherſoneſus of Thrace, many detachments to ſow corn and make the harveſt [a]. This ſentiment appears to me very ill founded. It is not ſeen in the Iliad, that from the moment the troops were aſſembled before Troy, they were ever ſent from the camp; it was by ſea that the Greeks had their ſubſiſtence. Homer makes it plain enough [b]. From time to time, there arrived convoys, which, as far as one can preſume, came from the different iſles neighbouring on the Troades [c]. We know that the Greeks had taken care to make themſelves maſters of them during the courſe of the expedition [d].

I finiſh what I have to ſay on the war of Troy by one laſt remark. The deſire of revenging the affront done to Menelaus, was the only motive which engaged the Greeks to carry their arms into Aſia. The object of making conqueſts, and of aggrandizing themſelves, had no ſhare in that enterpriſe. On the contrary, Troy was ſcarce taken, but the firſt care of the Greeks was to return back, without taking any meaſure to ſecure the country they came to conquer. The advantage they gained over the Trojans, was then literally, and according to their proverb, a *Cadmean* victory. For the ſmall portion of booty which the Greeks had to divide, they gave an opportunity for the greateſt vices and the greateſt diſorders being introduced into their country [e]. The long abſence of the greateſt part of the princes of Greece, opened the doors to licence and ir-

[c] Iliad. l. 7. v. 321.
[a] L. 1. p. 9. [b] Iliad. l. 7. v. 467. &c. l. 9. v. 71. &c.
[c] Ibid. l. 7. v. 467. & 468. [d] Ibid. l. 9. v. 328.
[e] Strabo, l. 3. p. 223.

regularities.

regularities. Thus it was being a prey to seditions which forced the ancient inhabitants to leave their country [f]. Constrained to go and look for new habitations, these wandering troops addicted themselves to robbery and piracy. Those of the Trojans who survived the destruction of their country, embraced also the same way of life [g]. The concourse of all these events produced a nursery of pirates and robbers, who did not cease for many ages to desolate trade and trouble the repose of the seas and the continent [h].

Eighty years after the destruction of Troy, Greece experienced a grand revolution. It was occasioned by the different movements which the descendents of Hercules made to enter into the dominions which belonged to them. This enterprise armed the Greeks against each other, and caused a long and bloody war, the success of which was various enough. They fought many battles, and many combats [i]. Yet I shall pass in silence the detail of all these events. We can scarce collect any instruction about the object which now employs us. I shall only remark, that, according to some writers, it was at this time that the use of the trumpet was introduced into the Greek armies [k].

I shall speak of a custom of which the history of these remote times furnishes us with many examples. It is seen on many occasions, when the armies, being in sight of each other, seem to be coming to blows, that instead of engaging, they referred the decision of the war to the hazard of a single combat. They chose on each side a champion, and the event of their combat ruled the fate of the party they sustained. The army whose champion had been conquered, retired without thinking of giving battle; and the articles which had been agreed upon were executed very faithfully [l]. It further appears, that this custom had place in the most early times, and among other people besides the Greeks.

[f] Thucyd. l. 1. p. 9.; Plato de leg. l. 3. p. 807. D.
[g] Strabo, l 3. p. 223. [h] See *supra*, b. 4. ch. 4.
[i] See *supra*, b. 1. ch. 4. art 6. [k] Suid. *voce* Σάλπιγξ, t. 2 p. 3[illegible].
[l] See *supra*, b. 1. art. 4. p. 47. & 48.

In the third book of the Iliad, the Greeks and the Trojans being in ſight of each other, and ready to engage, Hector propoſes to determine the differences of the two nations, by a ſingle combat between Paris and Menelaus. The conditions offered and accepted by both parties are, that the conqueror ſhall take away Helen with all her riches, and the two armies ſhall ſeparate after the Greeks and the that Trojans have entered into a firm and ſincere alliance.

On the ſubject of theſe ſingle combats, let us make a reflection, which preſents itſelf often in the reading of Homer. This poet deſcribes many ſingle combats between heroes of the firſt rank. Yet there is no detail, no variety in theſe recitals. The combats which he paints, only laſt a moment, and are not diſputed. The champions on both ſides only give one blow, and that blow is always deciſive. Hector fights againſt Achilles. Theſe two heroes are both covered with impenetrable arms. We expect to ſee the poet profit by this circumſtance, to make the combat laſt ſome time between theſe two very famous perſonages, whom he has introduced into his poem. Hector, nevertheleſs, is laid upon the ground at the firſt ſtroke. Achilles pierces his throat, which the armour had left uncovered [m]. Laſtly, we muſt obſerve, that the heroes of Homer ſcarce ever uſed the ſword. They commonly uſed the pike and the javelin.

Taſſo, on the contrary, and the other modern poets, are extremely various, and afford many details in their deſcriptions of combats. Whence comes this difference? and why this barrenneſs in Homer, whoſe imagination in other reſpects is ſo rich and fruitful? It is, becauſe in the heroic ages, and even in Homer's time, ſtrength decided every thing in combats. Dexterity went for nothing. They had not yet ſtudied the art of fighting. The different exerciſes which teach the way of handling arms to the greateſt advantage, were not invented; fencing, in a word, was not then known. Homer, of con-

[m] Iliad. l. 22. v. 324. &c.

ſequence,

ſequence, wanted ideas to vary and particularize his combats.

After ſo many details about the ſtate of the military art, in the ages we are running over at preſent, if we ſhould caſt a glance on the manner in which the conquerors uſed their advantages, we ſhall be ſeized with horror at what were then the laws of war, and the ſpirit of barbarity and cruelty which reigned among all the different nations of whom I have had occaſion to ſpeak. Cities reduced to aſhes, people maſſacred in cold blood, or reduced to the moſt cruel ſlavery, were the common conſequences of victory. They neither reſpected age, nor ſex, nor birth. Sovereigns ſaw themſelves expoſed to the moſt cruel indignities. There were no ſort of horrors, in a word which the conquerors did not exerciſe.

The writers of antiquity praiſe Seſoſtris for the moderation with which he treated the nations he had become maſter of. He left, ſay they, the princes whom he conquered on their thrones, contenting himſelf with impoſing tributes in proportion to their power, on condition, nevertheleſs, that they themſelves ſhould bring them into Egypt [n]. But in what manner did Seſoſtris treat theſe princes, when they came each year, at the time appointed, to pay the tribute agreed upon? Each time that the Egyptian monarch went to the temple on theſe occaſions, or that he entered into his capital, they unlooſed the horſes from his chariot, to put in their place the kings who came to do him homage [o].

Adonibeſec, who reigned in Paleſtine about two ages after Seſoſtris, furniſhes us with an example ſtill more ſtriking, of the exceſſes to which the conquerors carried themſelves in theſe barbarous and rude ages. He had defeated and taken ſeventy other ſovereigns of that country. It ſhocks one to ſee the manner in which he uſed his victories. He cauſed to be cut off the extremities of the feet

[n] Diod. l. 1. p. 63.

[o] Id. ibid.; Lucan. Phaſſal. l. 10. v. 277.; Plin. l. 33. ſect. 15. p. 611.

and hands of thoſe unhappy princes, and reduced them to have no other nouriſhment than the fragments that were left, and which they were obliged to pick up from under the table [p].

The laws of war were not leſs cruel among the Greeks. I ſhall not ſpeak of the indignities exerciſed by Achilles on the body of Hector, although the whole army ſeemed to take part in a proceeding ſo low and inhumane [q]; nor ſhall I likewiſe take notice of the twelve Trojans ſacrificed by this hero on the grave of Patroclus [r]. We may think that he ſuffered himſelf to be carried to that exceſs from an extravagant motive of vengeance. But when we read in Homer the taking leave of Andromache and Hector, we ſhall ſee what were at that time the rights of the conqueror, and how he uſed theſe advantages [s]. Death or ſlavery were the portion of the conquered nation. Nothing could ſhield them from it. Sovereigns maſſacred, their bodies caſt out a prey to dogs and vultures, their children cruſhed to death at the breaſt, queens following unworthily in chains, were the common exceſſes to which the conquerors abandoned themſelves [t]. They added outrage and humiliation to the rigours of captivity. Princeſſes were employed in the moſt vile offices. Hector does not ſcruple to ſay to Andromache, that if the Greeks became maſters of Troy, ſhe would be condemned to go and draw water like the meaneſt of ſlaves [u].

Hecuba complains, in Euripides, that ſhe was chained like a dog at the gate of Agamemnon. And we cannot think that the ſpirit of vengeance carried the Greeks to particular cruelties on the taking of Troy. Theſe exceſſes were only too common in the heroic ages. The Argives,

[p] Judg. c. 1. v. 7.

[q] Each ſoldier came to inſult on the death of this hero, and each word was accompanied with a ſtroke of the pike or javelin. Iliad. l. 22. v. 371. &c.

[r] Ibid. l. 23. v. 175.

[s] Ibid. l. 6. v. 448. See alſo l. 9. v. 537. &c.

[t] See Iliad. l. 22. v. 62. &c.; Virgil. Æneid. l. 2. v. 550. &c.

[u] L. 6. v. 457. This was formerly the buſineſs of the loweſt people. See Joſhua, c. 9. v. 23.

under

under the conduct of Alcmeon, having become maſters of Thebes, they deſtroyed that city and utterly ruined it [x]. I could ſtill cite other examples; but it is better to ſpare the reader, and not dwell any longer on facts ſo ſhameful to humanity.

Laſtly, we ſee, and it is the laſt trait by which I pretend to characterize the Greeks in the heroic times; we ſee, I ſay, that theſe people had then the horrible cuſtom of poiſoning their arrows. Homer relates, that Ulyſſes went purpoſely to Ilus, King of Ephyrus, to demand of him poiſon to rub his darts. Ilus refuſed to give him any, becauſe, ſays the poet, he feared the gods. But, adds he, Ulyſſes obtained it of another prince, ſovereign of Taphos [y]. It will perhaps be ſaid, that in all the wounds of which Homer had occaſion to ſpeak, it is not ſeen that the effect of poiſon is mentioned there. I agree, that the poet does not tell us ſo much. But I preſume he has affected this ſilence out of reſpect and regard for his nation.

[x] Apollod. l. 3. p. 159.

[y] Odyſſ. l. 1. v. 260.

BOOK VI.

Of Manners and Cuſtoms.

WE have nothing to ſay, in this ſecond part, of the manners of the Egyptians. I have reported under the firſt epoch all that could relate to that object. I am ſo much the more addicted to this opinion, as the manners of the Egyptians at that time were quite formed, and in that reſpect nothing is changed among theſe people. The manners were always the ſame in Egypt, as long as that nation ſubſiſted under the dominion of its natural kings. If, in the courſe of time, it appears, that they have introduced ſome novelties, they ſhould only be attributed to foreign nations, who ſucceſſively from Cambyſes, have rendered themſelves maſters of Egypt. I ſhall obſerve the ſame ſilence about the manners of Aſia Major. I have already had more than once occaſion to explain the motives. We abſolutely loſe ſight of theſe nations for a long ſpace of time. They do not begin to appear in hiſtory till towards the ages which make the object of the third part of this work.

We have only then to conſider, at this time, the manners of the inhabitants of Paleſtine, and thoſe of ſome nations of Aſia Minor. I ſhall afterwards ſpeak of the Greeks; and ſhall examine what were the manners and cuſtoms of that nation in the heroic ages, that is to ſay, in the times under examination at preſent.

CHAP.

CHAP. I.

Of the inhabitants of Paleſtine.

THere has, at all times, been remarked a great relation between the manners of a nation and its progreſs in the arts and ſciences. The taſte for pomp, luxury, and magnificence has always been the reigning vice of the eaſtern people. I have ſhewn elſewhere [a], that, in the firſt ages after the deluge, the inhabitants of Paleſtine had carried the arts and ſciences to a great degree of perfection. Theſe diſcoveries ſoon furniſhed this people with many ways of gratifying the deſire they had for luxury and effeminacy. This inclination hath always been, if one may ſay ſo, increaſing. This is ſeen from the manner in which Moſes ſpeaks, that in his time there muſt have reigned great pomp and magnificence in the greateſt part of the countries of Paleſtine. The nations who inhabited it at that time, wore gold rings, ear-rings, bracelets, and fine collars [b]. I have even obſerved in the preceding book, that among all theſe different nations, it was their cuſtom to go to war, ſet off with all their moſt valuable and rich things [c]. Laſtly, luxury was carried ſo far in theſe climates, that they adorned the camels deſtined for the uſe of their ſovereign, with ſtuds, chains, and plates of gold [d].

Profane hiſtorians agree in this point with the ſacred books. They teach us, that the art of ſtaining ſtuffs purple, a colour ſo ſought after by the ancients, that it diſputed the price with gold itſelf, was due to the inhabitants of Paleſtine [e]. I have ſhewn elſewhere, that this invention ſhould be aſcribed to the ages we are now run-

[a] See part. 1. b. 2. & b. 3.; and *ſupra*, b. 2. ſect. 1. c. 2. &c.
[b] Numb. c. 31. v. 50.
[c] Chap. 2. p. 345.
[d] Judg. c. 8. v. 21. 24. 26.
[e] See *ſupra*, b. 2. ſect. 1. c. 2, art. 1. p. 95. & 96.

ning

ning over [f]. It is alſo ſufficient to open the poems of Homer, to be convinced, that, at the time of the war of Troy, the Phœnicians were able to ſupply moſt part of the known world, with every thing that could contribute to ſupport luxury, pomp, and effeminacy.

Theſe facts prove ſufficiently, what muſt have been the manners and reigning inclinations of the inhabitants of Paleſtine. But the particular detail of their cuſtoms and manners is abſolutely unknown to us. I preſume, in general, that the manner in which the inhabitants of Paleſtine lived, in the ages of which I now ſpeak, were very like the manner of living we have ſeen took place in that country in the moſt early ages [g]. We know, that the manners and cuſtoms of the eaſtern people change very little.

CHAP. II.

Of the people of Aſia Minor.

THere was much conformity, in the ſame ages, between the manners of the inhabitants of Paleſtine, and thoſe of the nations of Aſia Minor. We ſee equally reign among both theſe people, great magnificence and effeminacy. We may judge by what Homer ſays of the Trojans and their allies. The manner in which he expreſſes himſelf on many occaſions, ſhews plain enough the inclination and character of theſe nations. This poet even furniſhes us, on this article, with ſome details capable of ſatisfying our curioſity.

It appears, that theſe people were very curious as to their apartments. Homer tells us, that there were in Troy many very large, very ſpacious, and magnificent palaces.

[f] See *ſupra, loco cit.* [g] See part 1. b. 6. c. 1.

That

That of Priam included a number of apartments which compoſed ſo many ſeparate pavilions, yet contiguous and joined to each other. There were fifty at the entrance of the court of his palace. Theſe fifty pavilions were inhabited by the princes, ſons of this monarch They lodged there with their wives. At the bottom of the court, and oppoſite to the apartments I have juſt mentioned, were twelve other pavilions, for the ſons-in-law of Priam [k]. Hector and Paris had each their particular palace independent of theſe [l].

I ſaid elſewhere, that we are ignorant in what the magnificence of theſe palaces could conſiſt, on the ſcore of architecture. We are not much better inſtructed as to the interior decoration. We ſee, in general, that the apartments of all theſe different palaces were wainſcotted with the fineſt woods [k], and ornamented with valuable moveables [l], but of what ſort, is not very well known. Homer farther ſays, that there breathed in theſe apartments a perpetual odour of the moſt exquiſite and moſt agreeable perfumes [m].

The Trojans were not leſs curious nor leſs voluptuous in their dreſs and habits. The Trojan ladies made great uſe of perfumes. They rubbed their bodies with odoriferous eſſences, and perfumed their habits [n]. Their cloaths were in great number and very various [o]. Laſtly, their toilette required much art and much time. We may be convinced of this, by reading the picture Homer makes of Juno's [p]. For I am perſuaded that we ought to refer to the manners of the inhabitants of Aſia Minor, all the deſcriptions which the poet makes of the dreſſes and toilettes of the goddeſſes. He would probably paint, on theſe occaſions, what the wo-

[k] Iliad. l. 6. v. 242. &c.
[l] Ibid. l. 6. v. 313 317. 370.
[k] Ibid. l. 24. v. 191. & 192.
[l] Ibid. l. 6. v. 289. l. 24. v. 192.
[m] Ibid. l. 6. v. 288. l. 6. v. 488. l. 24. v. 191.
[n] Ibid. l. 14. v. 170. &c. l. 3. v. 385.; Odyſſ. l. 6. v. 79. & 80.
[o] Ibid. l. 18. v. 400. & 401. l. 22. v. 458. &c. l. 14. v. 180.
[p] Iliad. l. 14. v. 170. &c.

men of his country practiſed; and, I think, that Homer was born and paſſed his life in Aſia Minor.

We farther ſee, in the heroic ages, it was the cuſtom, in theſe climates, for the princeſſes to be ſerved by a great number of female ſlaves [q]. By the by, they were the only ſort of domeſtics ever known in the eaſt.

With reſpect to the private and particular life of princeſſes, Homer and many other writers of antiquity teach us, that, in the heroic ages, they employed themſelves in ſewing, embroidering, and, in a word, working different works in frames [r]. We, moreover, find among the people of Aſia Minor the ſame cuſtoms, with reſpect to the women, that I have ſaid, in the firſt part, always took place in the eaſt. The women had their ſeparate apartments [s], and never appeared in public but when covered with a veil [t].

Luxury and effeminacy among the Trojans extended itſelf even to the men. They particularly took great care of their hair. Homer repreſents Paris entirely taken up with the care of dreſſing his hair [u]. Turnus in Virgil is alſo reproached by Æneas for dreſſing and perfuming his hair [x]. Theſe people did not content themſelves with having their hair in elegant order: they enriched it alſo with rings of gold and ſilver, which ſerved to keep up the curls [y]. Laſtly, we ſee, that Homer always gives to the Trojans, and to their allies, very rich and magnificent arms. The armour of Glaucus was of gold [z]. Nothing could equal the magnificence of the chariot which Rheſus uſed for war. His

[q] Iliad. l. 6. v. 286. 287. 375. 381. l. 22. v. 442. l. 24. v. 302.

[r] Ibid. l. 3. v. 125. l. 6. v. 491. l. 22. v. 440. l. 1. v. 31.; Odyſſ. l. 7. v. 105. 106.; Virgil. Æneid. l. 7. v. 14. See alſo Ovid. metam. *paſſim*.

[s] Iliad. l. 6. v. 251. & 252.; Odyſſ. l. 6. v. 15. *&c.* v. 50. 51.

[t] Iliad. l. 3. v. 141. 228. 419. l. 22. v. 470.

[u] Iliad. l. 11. p. 385.

The expreſſion which Homer uſes on this occaſion, ſhews, that it was then the cuſtom among the people of Aſia Minor, to divide their hair before, ſo that they roſe into a point, and they made them like two horns. See M. Dacier, t. 3. p. 88.

[x] *Vibrat tos ſolido ferro, myrrhaque madentes.* Æneid. l. 12. v. 100.

[y] Iliad. l. 17. v. 51. & 52.; Plin. l. 33. ſect. 4. p. 602.

[z] Iliad. l. 6. v. 235. & 236.

arms

arms dazzled the eyes by the richneſs and the beauty of their work [a].

I have nothing to ſay about the repaſts and diverſions of theſe people. I ſhall only remark, that Priam complains, that his children paſſed all the night in dancing and feaſting. He particularly reproaches them for making a great conſumption of lambs and kids [b]. This circumſtance ſhews, that they then looked upon the eating of ſuch meats as tbo ſenſual a delicacy. By examining the different traits ſcattered in the poems of Homer about the manners of the Trojans and their allies, it follows, that, in the heroic times, there muſt have been great luxury and effeminacy among the people of Aſia Minor.

In ſpite of the magnificence and ſenſuality which then reigned in theſe countries, yet we there perceive certain practices which ſhould be looked upon like the reſt of the cuſtoms primitively eſtabliſhed among moſt of the nations of antiquity. The ſons of Priam themſelves drew the chariot from the coach-houſe, when it was to carry that monarch to the Grecian camp. They put the horſes and the mules to it, and alſo packed up the coffer which contained the preſents deſigned for the ranſom of the body of Hector [c]. We ſee abſolutely the ſame cuſtom among the Phæacians, a nation, according to Homer, ſtill more addicted to luxury and magnificence than the Trojans *. The ſons of Alcinous unlooſed the mules of the Princeſs Nauſicaa their ſiſter, and carried the packets with which the chariot was loaded into the palace of the King their father [d]. Yet Alcinous had a great number of domeſtics. We even ſee, that this was cuſtomary on many occaſions [e].

I have already ſaid, that the princeſſes had alſo women to ſerve them. Yet they themſelves did many offices troubleſome enough. Nauſicaa goes to waſh her robes at

[a] Iliad. l. 10. v. 438. &c.

[b] Ibid. l. 24. v. 261. & 262. [c] Ibid. l. 24. v. 265. &c.

* See the reaſon why I place the Phæacians among the nations of Aſia, above. p. 81. note *.

[d] Odyſſ. l. 7. v. 4. &c. [e] Ibid. l. 6. v. 69. & 71.

the river with her women, and puts her hands to the work herſelf[f]. The women and the young ladies of Troy uſed to do the ſame[g]. The mixture of luxury and ſimplicity, which we remark perpetually in the manners of the ancient nations, forms a contraſt ſingular enough. In theſe early times, they were very diſtant from the ideas which we now have of the decency and decorums proper to rank, to ſex, and the quality of perſons.

CHAP. III.

Of the Greeks.

I Deferred to this time to ſpeak of the manners and cuſtoms of the Greeks. Theſe people, in effect, only began very lately to form themſelves into ſocieties. They lived in early times in ſo brutal and ſavage a way, that hiſtory has not deigned to take notice of them, or give us details which would be ſhameful to humanity. It was only towards the commencement of the ages which employ us in this ſecond part, that we can perceive any plan or principles in the manners of the Greeks. Homer ſhall be our principal voucher for moſt of the cuſtoms of which I am going to ſpeak.

We muſt not look for luxury and delicacy at the tables of the Greeks in the heroic ages.

Theſe people lived then a very rude life, and, of conſequence, a very frugal one. They only eat bull, ram, he-goat, and boar. I ſay bull, ram, &c. becauſe Homer always gives us to underſtand, that, at the time of the war of Troy, the Greeks did not yet know the art of gelding animals[h]. In reading the deſcription which this poet gives of the Grecian feaſts, we imagine we are reading thoſe modern relations, where they ſpeak of the repaſts of ſavages. When the

[f] Ibid. v. 90. & 91. [g] Iliad. l. 22. p. 154. & 155.
[h] See Odyſſ. l. 14. v. 76. & 77.

Greeks

Greeks prepared to eat, they knocked down a bull or cut the throat of a ram; they ſkinned theſe animals, and cut them into many pieces, which they broiled immediately [i]. I ſay broiled, becauſe in the heroic times they did not yet know the art of roaſting meat [k]. Let us add, that it was kings and princes who then joined themſelves not only in this care, but alſo in killing and cutting them up [l]. A ſort of poniard which they always carried at their girdle, ſerved them for a knife [m].

Another conformity of the Greeks with the ſavages. They had neither ſpoons, nor forks, nor table-cloths, nor napkins. I do not even ſee, that tables were known to them. Laſtly, for the laſt trait of reſemblance, theſe people, like the ſavages, eat prodigiouſly. It was to do honour to the principal gueſts, to give them very large pieces of meat. Agamemnon gives Ajax the entire back of a bull [n]. When Eumeus receives Ulyſſes, he prepares for that prince two young hogs [o].

With reſpect to game, poultry, and eggs, they are never mentioned in the feaſts of Homer. They do not even appear on the tables of Penelope's ſuitors, although the poet repreſents them abandoned to all ſorts of debaucheries and exceſſes *. It is the ſame as to fruits and vegetables. Homer makes no mention of them [p]. As to fiſh, the Greeks in the heroic ages greatly deſpiſed that ſort of nouriſhment. Me-

[i] See Iliad. l. 1. v. 459. *&c.* l. 24. v. 622. *&c.* Odyſſ. l. 3. v. 448. *&c.* l. 20. v. 250. *&c.*

[k] See Athen. l. 1. p. 12. B.; Serv. *ad* Æneid. l. 1. v. 740.

It appears, that they alſo boiled certain pieces which they could not eaſily boil. See Athen. ibid. p. 25. D.

[l] Iliad. l. 9. v. 209. *&c.* l. 24. v. 621. *&c.*

[m] Iliad. l. 3. v. 271. 272. [n] Ibid. l. 7. v. 321.

[o] Odyſſ. l. 14. v. 74. *&c.*

* The Greeks nevertheleſs ſometimes eat veniſon, but only on very preſſing occaſions, and for want of other food. See Odyſſ. l. 9. v. 155. l. 10. v. 180. *&c.*

[p] In all Homer's poems, onions are only ſerved up once, and even that is only to excite thirſt. Iliad. l. 11. v. 629.

With reſpect to fruits, they do not appear in any repaſt. Yet the Greeks muſt have eaten them in the heroic ages, ſince there were pear-trees, apple-trees, and fig-trees in the garden of Laertes. Odyſſ. l. 24. v. 339. *&c.* ſuppoſing that the 24th book is Homer's.

nelaus

nelaus in the Odyſſey excuſes himſelf from having eaten it, becauſe he was at that time reduced to the greateſt neceſſity [s].

Wine was the common liquor of the Greeks; women, and even young perſons drank it [t], contrary to the cuſtom of all the other nations of antiquity [u]. The cuſtom was at the time of the war of Troy, that they brought this liquor mixed with a certain quantity of water. One of the firſt preparations for a feaſt was, to begin with mixing wine and water together in large veſſels, from whence they drew it to fill the cups to preſent it to the gueſts [x]. For they only gave it by meaſure, and, as far as one can judge, they were not allowed to drink as much as they pleaſed [y]. A circumſtance which has always ſtruck me in the Grecian antiquity, is the affectation with which almoſt all the hiſtorians name him who paſſed for having firſt found out the ſecret of mixing water with wine [z]. They have even raiſed a ſtatue to him. Was this ſo uncommon a diſcovery, and of a ſpecies to attract the whole attention of poſterity? It plainly appears, that the Greeks attached to it a merit which does not ſtrike us at preſent [a].

Theſe people, in the times I ſpeak of, commonly made two meals a-day, one at noon, and the other at night [b]. The laſt was always the largeſt and moſt conſiderable [c]. They ſerved up the meat all cut, and each gueſt had a portion marked out, which they preſented to him ſeparately [d].

[s] L. 4. v. 368. & 369. [t] Odyſſ. l. 6. v. 77. [u] See Athen. l. 10. p. 441.
[x] See Feith. antiq. Hom. l. 3. c. 2. p. 280. *&c.*
[y] See Iliad. l. 4. v. 261. 262.; l. 8. v. 162.; Athen. l. 5. p. 192.
[z] Hygin. fab. 274.; Plin. l. 7. ſect. 57. p. 415.; Athen. l. 2. p. 38. & 45. Scholiaſt. Stat. *ad* Theb. l. 1. v. 453.
[a] We may perhaps find the motives of theſe eulogies from the quality of the Greek wines. They are all luſcious, and drink ever ſo little, they fly into the head, and are troubleſome. They have therefore thought they ſhould ſhew ſome acknowledgment to him who had found a way of taking from theſe wines their bad quality, by an exact and proportioned mixture of water. For they obſerved rules in it. They had certain wines which they diluted more or leſs according to their qualities. Homer gives us many examples of it.
[b] See Feith. l. 3. c. 3. [c] Ibid. p. 289.
[d] Iliad. l. 2. v. 431. l. 9. v. 217. l. 24. v. 626.; Odyſſ. l. 14. v. 434. l. 15. v. 140. l. 20. v. 280.; Athen. l. 1. p. 12.

The

The Greeks eat ſitting in the heroic ages [c], and not lying on couches, as was the cuſtom afterwards. We preſume, that they did not then like to have above ten at the table [d]. It muſt be obſerved, that the women did not eat with the men. Laſtly, I ſhall obſerve, that the company drank to each other's health [e].

The dreſs of the Greeks, in the times which now employ us, was ſomething like to the people that I have ſpoken of in the firſt part of this work.

It conſiſted for the men in a very long tunic, and in a cloak which they faſtened with a claſp [f]. They tucked up the tunic by means of a belt, when they were to do any thing, to walk or go to battle [g]. The uſe of linings muſt not have been then known in Greece. I judge thus from the cuſtom the people then had of frequently waſhing their cloaths [h]. The manner in which they did it, deſerves to be taken notice of. They cleaned their ſtuffs, by treading them with their feet in large ditches they had prepared for that purpoſe [i].

The Greeks, in the heroic ages, uſed ſhoes, but not conſtantly. They only uſed them when they went out [k]. We do not ſee plainly what were the form of theſe ſhoes. The men alſo wore a ſort of buſkin made of neats hide [l], which came to the calf of their leg. They had no ſort of covering for their head; their dreſs in this reſpect conſiſted in the beauty of their hair, which they wore very long [m]. Light-coloured was at that time moſt eſteemed [n]. Thoſe who valued themſelves for dreſs, faſtened the curls of their hair with gold pins. Among the Athenians theſe pins were made in the form of the cicada [o]. As to the beard, the Greeks in the heroic times let it grow [p].

[c] Athen. l. 1. p. 11. F.; Feith. l. 3. c. 5. p. 296.
[d] See Euſtath. *ad* Iliad. l. 2. v. 126.
[e] Feith. l. 3. c. 5. p. 306. & 307.; Plut. t. 2. p. 156. F.
[f] See Feith. l. 3. c. 6. [g] Idem ibid. p. 321. l. 4. c. 8. p. 464. & 465.
[h] Feith. p. 348. [i] Odyſſ. l. 6. v. 93. [k] Feith. l. 3. c. 7. p. 331.
[l] Odyſſ. l. 24. v. 227. [m] See Feith. l. 3. c. 10. p. 349.
[n] Ibid. p. 350. [o] Thucyd. l. 1. p. 4. D.
[p] Odyſſ. l. 16. v. 176. l. 18. v. 175.; Diod. l. 4. p. 251.

It was the cuſtom in theſe age, not only for princes, but even for conſiderable perſons, ſuch as fathers of a family, judges, &c. to carry as a mark of diſtinction, a baton made in the form of a ſceptre [q]. It is to be remarked, that Homer never ſpeaks of crowns nor diadems. The Greeks did not know them in the heroic times.

There had at that time reigned great luxury in the mens dreſs. This is the deſcription that Homer makes of that of Ulyſſes. This prince, ſays he, was clothed in a very fine and very large purple cloak, which was faſtened with a double claſp of gold. The cloak was embroidered on the fore-part. There was ſeen, among other ſubjects, a dog holding a fawn ready to tear it to pieces. Theſe figures were in gold. Under the cloak Ulyſſes had a tunic of exceeding fine ſtuff, the luſtre of which Homer compares to that of the ſun [r]. From hence it may be inferred, that the Greeks then wore cloths, into the tiſſue of which they put gold and ſilver.

There remains to us almoſt the ſame detail of the dreſs of the women in theſe remote times. They had at that time long robes tied and faſtened with claſps of gold [s], among perſons of eaſe and diſtinction. Homer does not tell us in what conſiſted the beauty of theſe dreſſes. With reſpect to the other ornaments of the Greek ladies, in the heroic ages, they wore collars of gold, and bracelets of the ſame metal, adorned with amber, and ear-rings with three drops [t]. We muſt add, that they then uſed painting to clear and heighten their complexion [u]. We muſt further obſerve, that the women of diſtinction never went abroad but when covered with a veil, or rather a ſort of mourning-veil [x], which they put over their robe, and faſtened it with a claſp [y].

[q] Iliad. l. 2. v. 46. & 186. &c. l. 18. v. 556. & 557.; Odyſſ. l. 2. v. 37. l. 3. v. 412.

[r] Odyſſ. l. 19. v. 225. &c.

[s] Iliad. l. 5. v. 424. & 426.

[t] Odyſſ. l. 11. v. 325. & 326.; Ælian. var. hiſt. l. 1. c. 18.; Pauſ. l. 9. c. 41. p. 795.

[u] Odyſſ. l. 18. v. 171. 191. & 192. [x] Ibid. l. 1. v. 334.

[y] Iliad. l. 5. v. 424. & 425.

But

But it muſt be agreed, that the dreſs of the Greeks, as well for the men as for the women, was very imperfect. Is it not aſtoniſhing, for example, that theſe people never knew neither breeches, nor ſtockings, nor drawers, nor pins, nor buckles, nor buttons, nor pockets? They knew no more of caps nor hats. I have already ſhewn that the Greeks did not uſe to line their cloaths; thus, for fear of being cold, they were obliged to have recourſe to their cloaks [z]. It is ſtill more ſtrange, that not being ignorant of the art of preparing flax, or making cloth of it [a], they ſhould never think of making ſhirts; and, in general, linen was entirely unknown to them. It is for this reaſon that the uſe of the bath was ſo familiar to the ancients. The invention of linen, and the cuſtom of wearing it habitually, has introduced, in this reſpect, a remarkable change in our manners.

I have ſhewn in the preceding books, that we cannot form an exact and clear idea of the external form of the Greek houſes, in the heroic times [b]. The diſtribution and the decoration of their apartments are not much better known to us. It only appears, that the lodgings below were inhabited by the men, and thoſe above by the women [c]. All thoſe apartments notwithſtanding muſt have been very incommodious, ſince the Greeks neither knew the uſe of chimneys, nor windows, nor a number of other inventions, of which we do not at this time perceive all the merit, from having enjoyed them from our infancy.

As to moveables, we can ſpeak of them with a little more preciſion. The Greeks had at that time two ſorts, the one for uſe and conveniency, and the other for luxury and ſhow. The firſt conſiſted in beds, chairs, tables, and coffers [d]. For theſe people, in the heroic times, neither had preſſes, ſide-boards, nor buffets. They did not

[z] See Odyſſ. l. 14. v. 480. &c.
[a] See Iliad. l. 9. v. 657. l. 20. v. 128.; Odyſſ. l. 13. v. 73. l. 14. v. 519.
[b] B. 2. chap. 3. p. 213. [c] See Feith. l. 3. c. 11. p. 363.
[d] Odyſſ. l. 8. v. 424. 425. 438. 439.

uſe hangings. Let us now ſpeak of the uſeful moveables.

The Greek beds were compoſed of girth bottoms, ornamented with quilts, coverlets, and probably with ſome ſort of bolſters [e]. There do not appear to have been any pavilions or teſtors, nor were curtains anciently uſed in Greece. Homer makes no mention of them. They undreſſed when they went to bed [f]. Some paſſages in the Iliad and the Odyſſey may give us room to think, that the Greeks, at the time of the war of Troy, uſed ſheets [g]. But this fact appears to me ſo much the more doubtful, as that cuſtom was unknown to all antiquity. We ſee alſo, that, among princes and kings, the woods of the bed were ornamented with plates of gold and ſilver, and pieces of ivory [h]. In the army, the Greeks laid upon ſkins ſpread upon the ground. They covered themſelves with carpets, or other ſtuffs which ſerved for blankets. They afterwards had coverlets put above all.

The form which chairs had anciently in Greece, is not well known to us. I preſume that they were entirely of wood, having a plain back without arms. Theſe chairs had always a footſtool, whether they were uſed in the apartments for converſation, or at the table for eating [i]. Among the great people, they covered them with ſkins and purple ſtuffs [k]. The ſame magnificence appeared on the wood of the chairs, as on the wood of the beds [l]. They were elegantly wrought with many ornaments [m]. Such were the principal uſeful moveables the Greeks had any knowledge of in the heroic times.

Their moveables for luxury at that time conſiſted in beautiful tripods deſigned only to ornament the apartment; for they made no other uſe of them [n]. Let us add to them ciſterns

[e] See Feith. l. 3. c. 8. p. 334.
[f] Odyſſ. l. 1. v. 437. &c.
[g] Iliad. l. 9. v. 657.; Odyſſ. l. 13. v. 73. l. 14. v. 519. &c.
[h] Odyſſ. l. 23. v. 189. &c. [i] Feith. l. 3. c. 11. p. 361.
[k] Iliad. l. 9. v. 657. &c. l. 10. v. 155. 156. l. 24. v. 644. &c.
[l] Feith. p. 297. [m] Ibid. p. 361.
[n] See Iliad. l. 9. v. 122. l. 18. v. 373. & 374.

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ciſterns [o] and other precious vaſes, for the materials and workmanſhip. The Greeks in the heroic times had neither ſtatues nor pictures [p]. It would be very difficult, not to ſay impoſſible, to explain in what manner gold, ſilver, ivory, and perhaps amber, were employed to decorate the inſide of the palaces of which Homer ſpeaks [q]. We cannot even propoſe conjectures upon this head. Let us therefore paſs to the cuſtoms of civil life, and ſee, how the Greeks in the heroic ages conducted themſelves in ſociety, what were at that time the amuſements, and, in a word, the manners of that nation.

The politeneſs of theſe remote times conſiſted in calling each perſon by his name [r], to ſalute him with the right hand, and to embrace him [s]. They alſo held ſome obliging diſcourſe when they firſt met [t]. One of the principal rules of civility was, when they received ſtrangers, to wait ſome days before they aſked the cauſe and the motives of their journey [u]. It was alſo polite formerly among the Greeks, to go firſt even into their own houſe [x].

The men did not live habitually with the women. They were almoſt always ſhut up in their apartments [y]. The manners of the Greeks favour too much of the little intercourſe there was between the ſexes. We ſhall always be ſhocked at the groſſneſs and indecency of the diſcourſe of Homer's princes and heroes. There is not one action, even to their teſtimonies of eſteem and conſideration, which does not bear the impreſſion of the barbarity which ſtill reigned in Greece in the heroic ages. The beſt manner, in effect, of ſhewing to any one how much they honoured and eſteemed him, was to ſerve him at table with a large

They then called *Tripods*, large veſſels made in a particular manner, which I doubt whether we know at preſent. They gave them this name, as far as appears, becauſe they were ſupported by three feet.

[o] Iliad. l. 23. v. 267. 268. & 270. [p] See *ſupra*, book 2. p. 171.
[q] Odyſſ. l. 4. v. 72. &c. [r] Iliad. l. 10. v. 68. & 69.
[s] Feith. l. 3. c. 13. [t] Ibid. [u] See Iliad. l. 6. v. 175. & 176.
[x] See Odyſſ. l. 1. v. 125. [y] See Corn. Nepos, in præfat. p. 29.

portion of victuals, and always to pour out to him a bumper [z]. Such at this time is the politeneſs of ſavages [a].

The Greeks had two ſorts of domeſtics, ſlaves, and free people who ſerved for the wages they gave them [b]. A number of theſe was ſo far from being a charge to their maſters, that, on the contrary, they obtained a good deal of profit and advantage from them. They uſed them to keep their flocks, and to improve their lands, the only riches they almoſt knew in theſe remote times. Moreover, it was not then the cuſtom of having domeſtics ſolely for pomp and oſtentation. We do not ſee among the Greek princes neither porters, nor uſhers, nor guards, nor maſters of the ceremonies, nor valets de chambre, nor any other officers which filled the courts of the monarchs in Egypt and Aſia. In the field particularly the heroes of Homer ſerved themſelves, as I have already remarked; but in the city cuſtoms were very different. Neſtor and Menelaus were always ſerved by officers [c] in their palaces. It was the ſame with the lovers of Penelope. It is ſeen, that, on almoſt all occaſions, theſe princes were ſerved by domeſtics [d]. Let us remark on this ſubject, that at that time it was the women or the girls who did for the men all the domeſtic offices, even thoſe in which modeſty and decency ſeem to be much intereſted. It was the women who conducted the men to bed, to the bath, who perfumed them, dreſſed and undreſſed them [e]. Let us farther ſay, that with the Greeks, in the heroic times, as at this day among the ſavages, the women were charged with almoſt all the

[z] See Iliad. l. 4. v. 261. &c. l. 7. v. 321.

[a] Mœurs des ſauvages, t. 1. p. 520.

[b] Odyſſ. l. 1. v. 398. l. 4. v. 23. 216. 217. & 644. l. 11. v. 488. l. 18. v. 356. &c. Herod. l. 8. n. 137.

This ſecond ſort of domeſtics, to ſpeak properly, were only daily ſervants.

[c] Odyſſ. l. 3. v. 338. 339 l. 4. v. 23. 37. & 38. &c. 57. 58. 216. 217. 621. &c.

[d] Ibid. l. 1. v. 109. 110. l. 16. v. 248. & 253. l. 17. v. 331. &c. l. 18. v. 75. l. 20. v. 253. &c.

[e] Iliad. l. 1. v. 31. l. 14. v. 6. 7. l. 18. v. 559. 560.; Odyſſ. l. 1. v. 436. &c. l. 3. v. 464. l. 4. v. 49. l. 10. v. 348. &c. l. 15. v. 93. 94. l. 17. v. 88. &c. l. 19. v. 320. l. 20. v. 105. &c. v. 147. 297. 298.; Athen. l. 1. p. 10. E. Catullus, Poem. 62. v. 160.

laborious

laborious works of the houſe. They made them grind the corn, bake the bread, fetch water, clean the apartments, make the beds, light the fire [f], &c. The little regard and reſpect for the ſex has at all times characterized barbarians.

The Greeks, in the heroic ages, knew different ſorts of pleaſures and amuſements. They had muſic, dancing, exerciſes of the body, and the games at quoit and ball. Theſe people particularly had a great regard for muſic. They had on this article very different ideas from thoſe which we have at this time. That art is only looked upon by us as a mere amuſement. The Greeks conſidered muſic with a much more ſerious and attentive eye. They were thoroughly perſuaded that it not only ſerved to exhilarate the ſpirits, but even contributed greatly to form the heart. I ſhall content myſelf, among many examples of this way of thinking, to quote one of the moſt remarkable. Homer ſays, that Agamemnon, on going for Troy, had left with the Queen his wife, a muſician charged with the care of the conduct of that princeſs. Egyſthus, adds he, could not triumph over Clytemneſtra till after he had cauſed to be deſtroyed the muſician whoſe inſtruction kept that princeſs in the path of virtue [g]. It was in conſequence of theſe ideas, and the effects of muſic, that it attracted the principal attention of the ancient legiſlators. This art had, in the opinion of many people, an intimate relation and connection with manners. The fact is too well known to be inſiſted upon.

It appears, that, in the heroic times, the lyre was preferred to the flute. On all occaſions where Homer has occaſion to introduce muſic, he only ſpeaks of the lyre. Some pretend that at that time the ſtrings of this inſtrument were made of lint. They ground this opinion on a paſſage in the Iliad, which ſeems to indicate it [h]. But beſides that the terms which the poet uſes are ſuſceptible of an explication which may equally agree with ſtrings of

[f] Id. ibid; Herod. l. 8. n. 137.
[g] Odyſſ. l. 3. v. 267. &c.
[h] Schol. *ad* Iliad. l. 18. v. 570.

tharm,

tharm; we ſee by other paſſages, that they were known at that time [i]. Farther, what ſound could be drawn from a flaxen ſtring? Be this as it will, we muſt obſerve further, that the lyre was only uſed anciently to accompany the voice. We do not ſee in Homer, any perſon playing on that inſtrument without ſinging. They never touched it alone. The ſubjects of their ſongs were always ſome pieces taken from mythology or hiſtory. The time of repaſt was commonly that in which they choſe to hear muſic; that is to ſay, a ſinger joined his voice with the lyre. For Homer never introduces but one muſician on theſe occaſions. They were ignorant then of the art of multiplying inſtruments, and of making many play together to produce an agreeable harmony; an art which, I think, was unknown to all the nations of antiquity [k].

I ſhall not make any reflection on the dances which might have been anciently uſed among the Greeks, nor on the different exerciſes which made the favourite pleaſure of that nation. We have ſo much written about all theſe objects, and they are ſo familiar to us, that I think I ſhall be excuſed from ſpeaking of them. No one is ignorant that all theſe inſtitutions tended to make the body more ſtrong and active. I moreover doubt, notwithſtanding the teſtimony of a number of authors, that, at the age of the war of Troy, they had in Greece ſpectacles regulated and fixed at a certain time, and at a certain place, that is to ſay, games which they celebrated regularly, ſuch as were afterwards the Olympic, the Pythian, Nemean games, &c. Homer does not give us to underſtand ſo much. We only collect from the reading of his poems, that the cuſtom then eſtabliſhed was to celebrate games on certain occaſions, where they diſtributed prizes of a conſiderable value to the conquerors [l]. This circumſtance ſhews at firſt ſight an eſſential difference in the recompenſes, the princi-

[i] Odyſſ. l. 25. v. 406. &c.
[k] See les mem. de Trev. Octobre 1725, p. 1774. &c.
[l] See Iliad. l. 9. v. 123. &c. l. 23. v. 259.

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pal object of the combatants. Thoſe who carried away the victory in the Olympic, Pythian, Iſthmian, Nemean games, had only a crown made of the branches of olive, laurel, pine, aſh, &c. Glory was then the only motive that animated the combatants, and not lucre and cupidity. Theſe motives, on the contrary, might enter mostly into the games ſpoken of by Homer, where the prizes conſiſted in ſlaves, horſes, arms, oxen, precious vaſes, ſums of gold and ſilver, &c. Laſtly, the Olympic games, Pythian, &c. were celebrated at certain epochas, and conſtantly at the ſame places; but it does not appear by any paſſage of Homer, that, at the time of the war of Troy, there was any thing fixed or regulated about the time or place where they ſhould celebrate the games he deſcribes. We may nevertheleſs reconcile all theſe facts, by ſaying that the conſecrated games of Greece eſtabliſhed very anciently had ceaſed from being celebrated for a long time; an interruption which hiſtory furniſhes us with many examples of [m]. It is not then ſurpriſing that Homer has ſaid nothing of their celebration. But as this point of criticiſm would require a pretty long diſcuſſion, and beſides would be of very little uſe, I do not think I ſhould engage in it.

It now only remains to give a general glance on the manners of the Greeks in the heroic ages; that is to ſay, on their manner of thinking and acting. We may already have judged, by all that I have ſaid, to what a degree theſe people were at that time barbarous and ignorant. The ferocity of their manners anſwered to the groſſneſs of their minds. They had neither morals nor principles. The law of the ſtrongeſt was almoſt the only one which they acknowledged. This anarchy forced the Greeks at that time to travel always armed, and to be perpetually in a ſtate of defence [n]. In the deſcription of the ſhield of Achilles, Homer repreſents the young men dancing with their ſwords on [o].

[m] See le journal des ſcavans, Fevr. 1751, p. 112. &c.
[n] Thucyd. l. 1. p. 4. C.; Ariſt. de repub. l. 2. c. 8. t. 2. p. 327. B.
[o] Iliad. l. 18. v. 597. & 598.

They.

They found then, in theſe ancient times, neither repoſe nor ſecurity in Greece. Robbery and licentiouſneſs reigned every where [p]. It was for this reaſon that ſtrength of body and courage in battle were formerly the moſt ſhining qualities which theſe people knew [q]. Wiſdom, juſtice, probity, moſt part of the moral virtues, in a word, had not even names in the ancient language of the Greeks, as they ſtill have not among the ſavages in America [r]. I dare not even affirm, that there was then in the Greek language a term which even expreſſed the general idea of virtue [s].

Politeneſs was never introduced into a country but by means of letters. The moſt brutal vices and moſt prejudicial to humanity are the portion of groſs and ignorant nations. Philoſophy had not yet enlightened Greece at the time of the war of Troy. Thus the conduct of its inhabitants, at that time, preſents to us a moſt diſmal and hideous picture. The hiſtory of the heroic ages only affords uſurpations, murders, and unheard-of crimes. It was at this epocha that all thoſe famous criminals appeared, whoſe names have come down to us. There we ſee Theſeus, Atreus, Eteocles, Alcmeon, Oreſtes, Eryphile, Phædra, and Clytemneſtra. Almoſt all the princes who went before Troy, were betrayed by their wives. The kingdom of Mycenæ alone preſents the moſt ſignal cataſtrophes. The ſcene each moment is imbrued with blood. The hiſtory of Pelops and his deſcendents is a continued ſeries of crimes and horrors [t]. In

[p] See *ſupra*, b. 4. p. 315. [q] See Feith. l. 14. c. 7. p. 452.

[r] See la Condamine, relat. de la riviere des Amazones, p. 54. 55.

[s] The word ἀρετὴ, ſo often uſed in Homer, is viſibly derived from ἄρης, Mars, *fight*, and only ſignified originally *bravery*, or *warlike virtue*.

If afterwards the word ἀρετὴ has been uſed, to ſignify *virtue* in general, it is becauſe for a long time the Greeks knew no other virtue but valour, which, even in the brighteſt ages of that nation, was always regarded as *virtue by excellence*.

I think we may ſay as much of the word σοφία, *wiſdom*, which we alſo meet with in Homer. This term only means, with the poet, *ſkill* and *addreſs* in the mechanic arts.

[t] See *infra*, b. 1. p. 37.

a word, the heroic ages are the times the most fruitful in incests and parricides spoken of in history [b].

After these reflections, it will, I think, be very unnecessary to stop to prove how much the praises which certain authors have thought proper to heap on the heroic times, are false and unreasonable. We may very well apply to these ages so boasted of, all that I have said of those which made the object of the first part of this work. The Greeks were at that time as ignorant, and, of consequence, as vicious as the people there spoken of could be. There passed many ages before the greatest part of the universe came out of that fatal ignorance, of which the most shameful vices and excesses were the unavoidable consequence.

[b] Pauf. l. 2. c. 29. p. 179.

DISSERTATIONS.

DISSERTATION I.

On the names and figures of the conſtellations.

I Have ſhewn, in treating the hiſtory of aſtronomy, that, in the earlieſt times, they had contrived to diſtinguiſh the ſtars more eaſily, to reduce many of them under one and the ſame group. I ſaid alſo, that, from that time, they had given certain names to theſe different collections which we now deſign by the word *conſtellation*. The origin of theſe figures and of theſe names is, of all the queſtions that offer themſelves about the origin of ancient practices, not only one of the moſt curious, but, at the ſame time, the moſt obſcure and impenetrable. The different ſyſtems which they have invented to give a reaſon for ſo whimſical a cuſtom, prove plainly the difficulty of the ſubject I have undertaken to treat of. It is ſo much the more diſagreeable, as there now remain no monuments of the progreſs of aſtronomy in the firſt ages. We cannot therefore hope ever fully to ſatisfy the curioſity about a cuſtom, the motives of which are very obſcurely offered to the lights of reaſon. Let us endeavour nevertheleſs to propoſe ſome conjectures. There are three queſtions preſented to us to be examined.

1. If the names we at this time give to the conſtellations can ſhew us thoſe given to them originally?

2. Why they have employed preferably the names of certain objects to deſign the conſtellations?

3. What could have been the motive which directed the application of the names of theſe objects to certain conſtellations?

I ſhall alſo try to trace the origin of ſome whimſical expreſſions

expreſſions which they ſtill uſe in the language of aſtronomy.

If we refer to the greateſt part of the authors who have buſied themſelves to this time about the queſtion which at preſent employs us, it is in the moſt early antiquity that we muſt look for the origin of the names and figures aſtronomers have made uſe of to deſign the conſtellations. I am far from adopting this ſentiment. Theſe inſtitutions do not appear to me to be the work of the firſt obſervators. On the contrary, every thing leads us to think that the primitive denominations have been altered, and that the Greeks have probably introduced this change. Theſe are the names which they have thought proper to give to the conſtellations which they retained; but theſe names moſt certainly are not of the firſt ages of aſtronomy [a]. It is true, at this time, the Arabians, the Moguls, the Tartars, and almoſt all the people of the eaſt, deſign the ſigns of the zodiac by the ſame names with us. But we know that all theſe nations, except the Chineſe, adopted the aſtronomy of the Greeks [b]. Theſe people had carried them into Arabia and Perſia, from whence they had paſſed into Mogul and Tartary. It is not then ſurpriſing to find in theſe countries the Greek conſtellations. This conformity proves nothing for the antiquity of theſe names *.

But,

[a] Theſe names for the moſt part are poſterior to the expedition of the Argonauts.

[b] See Weidler, hiſt. aſtronom. c. 8. p. 205. & c. 10. p. 244. 245.

M. Hyde affirms it poſitively of the ſigns of the zodiac in his commentary on the tables of Ulugh-Begh, p. 4.

* What I ſay here of the Greek aſtronomy's being received among the Arabians and the other people of the eaſt, will at firſt ſight appear contradictory to what I have ſaid in the firſt part, p. 224. This contradiction, notwithſtanding, is only apparent. The Arabians, and the other people of the eaſt, had certainly their notions of aſtronomy before the time they frequented the Greeks; but, according to all appearances, their knowledge was not very perfect. The conqueſts of Alexander in Upper Aſia, and the empire which after his death the Seleucidæ eſtabliſhed in theſe countries, brought on a very great commerce between the Greeks and the Aſiatics. Aſtronomy had then made a very great progreſs in Greece. The Arabians, and the other nations of

But, ſay they, the Greeks did not invent aſtronomy: they learned it from the Chaldeans, the Phœnicians, and the Egyptians; it may be preſumed, that they would have retained the names and figures which theſe people had given to conſtellations; and thus the tradition of the primitive cuſtoms would have been tranſmitted to us. This objection is not difficult to be anſwered.

Although the Greeks were inconteſtably indebted for the greateſt part of their aſtronomical knowledge, to the Chaldeans, the Phœnicians, and the Egyptians, they had nevertheleſs ſtrangely altered the ſymbols by which theſe people had deſigned the conſtellations. The Greeks had formed a particular zodiac. The names by which they deſigned the conſtellations, were not thoſe made uſe of by the ancient nations. Let us hear what the authors of antiquity have ſaid on this ſubject.

Firmicus ſays poſitively, that the ſphere of the Barbarians, that is to ſay, the people of Egypt and Chaldea, was entirely different from that of the Greeks and the Romans. Many other writers ſpeak alſo of the difference there was between the Greek and the Egyptian zodiac. The names of the conſtellations, among theſe two nations, had no reſemblance [c]. In the Egyptian ſphere they neither knew the name nor the figure of the *Dragon*, of *Cepheus*, of *Andromeda*, &c. The Egyptians had given to that collection of ſtars which compoſed theſe conſtellations among the Greeks, other figures and other names [d]. It is the ſame with the Chaldeans [e]. The eaſtern people had never known Gemini (Caſtor and Pollux), which the Greeks had made

whom we have juſt ſpoke, profited by theſe diſcoveries, and, in conſequence, adopted the terms and the figures received in the Greek aſtronomy.

[c] See Salmaſ. de ann. climact. p. 594.

[d] Achil. Tat. iſag. c. 39. See alſo Plut. de Iſide & Oſiride, p. 529.

[e] Achill. Tat. *ibidem.*

All that we have here ſaid from the ancients about the difference there was between the ſphere of the Greeks and that of the ancient nations, ſhould be underſtood with ſome reſtriction. We will explain a little after the ſenſe in which we think theſe words ſhould be taken.

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the third ſign of the zodiac [f]. In effect, there now remain to us almoſt none of the names which the firſt inhabitants of Arabia originally gave to the conſtellations; but, from the little which is preſerved, we ſee that they muſt have been different from thoſe by which we deſign them at this time [g]. After theſe facts, it remains to examine, what could have been the primitive cuſtom, and for what reaſon the conſtellations have been deſigned among all people by denominations ſo whimſical, and ſo remote from the figure which they have in the heavens.

Do not the ſtars preſent themſelves with the ſame arrangement to all eyes? Is not their diſpoſition the ſame for all climates? Yes, without doubt. But in all climates they have not looked upon them with the ſame eyes; I mean, that all the people have not obſerved a uniform plan to group the ſtars. The forms under which they have reduced theſe ſtars, having been very different, the number and form of the conſtellations, of conſequence, muſt have varied in each country. It is for this reaſon that the Indians reckon in the zodiac twenty-ſeven conſtellations, and the Chineſe twenty-eight [h]. There are even among theſe laſt conſtellations which are only compoſed of one ſtar [*].

If we remark a great variety in the number, and in the form of the conſtellations among the different people of this univerſe, it is not leſs perceptible in the names by which they have thought proper to deſign them. If we run over all the nations, even the moſt ſavage ones, we ſhall ſee that they knew ſome conſtellations, and that they have given names to them, which are all relative to certain ſenſible objects. Yet nothing is leſs uniform than the objects to which each nation has reſembled the conſtellations. Whence comes the agreement of ſo many nations, who certainly have had no commerce with each other, to deſign

[f] Herodotus affirms it of the Egyptians. l. 2. n. 43. See alſo Hyde, hiſt. relig. vet. Perſar. c. 32. p. 391.

[g] See Hyde in tab. Ulugh Begh.

[h] See les obſervat. math. aſtron. &c. faites aux Indes, & à la Chine, publiées par le P. Souciet, t. 1. p. 243.

[*] The firſt conſtellation of the Chineſe zodiac, called *Kio*, which means a *horn*, is only compoſed of one ſtar.

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the conſtellations by denominations which have no relation with their arrangement in the heavens? How could it have happened, that they ſhould all be united in a practice ſo much the more extraordinary, as it is leſs natural? Before we enter into any diſcuſſion, I think it is proper to diſtinguiſh the times.

We have here two objects to conſider; the names which they had given primitively to the conſtellations, and thoſe by which we deſign them at preſent. The origin of theſe laſt is very ancient. But I have already ſaid, that we ſhould not attribute their invention to the firſt ages of aſtronomy. Theſe denominations have not relation enough with the apparent diſpoſition of the greateſt number of ſtars. I cannot perſuade myſelf, that the firſt men can be ſaid to have ſeen in the collections of ſtars of which they formed the conſtellations, the reſemblance of the greateſt part of the figures by which they deſign them at this time among almoſt all nations. They muſt have uſed originally ſome method different from that which remains to us. It is this primitive practice which we muſt endeavour to find out, and explain at the ſame time the origin of that which we uſe at preſent.

The firſt denominations muſt have been extremely ſimple, and relative to the object which they would deſign. If we could hope to find any traces of theſe primitive cuſtoms, it is among the ſavages in America that we muſt ſearch for them. Theſe people, before the arrival of the Europeans, knew ſome conſtellations, and had given names to them. Let us examine the ſignification of theſe names, and the ideas which they had annexed to them.

The Iroquois knew *Urſa Major*. They called it *Okouari*[1], that is to ſay, Bear; a denomination, the motives of which are very eaſy to penetrate into, as we ſhall ſee in a moment. With reſpect to Urſa Minor, it does not appear that theſe people had given a name to that conſtellation. It is only the polar ſtar which had attracted their attention[k]. It was it which directed them in their voyages. They had need of ſuch a guide, leſt they ſhould be loſt in the vaſt

[1] Mœurs des ſauvag. t. 2. p. 236. [k] Ibid. p. 239.

countries

countries in the continent of America. The name which they had given to that ſtar is very ſimple. They named it, *Iate ouattentio, that which does not move* [l]. This denomination is founded on this, that the motion of that ſtar is inſenſible, and that it appears always fixed in the ſame point.

The people of Greenland know not only the polar ſtar, but even all the conſtellations of Urſa Minor. They call it *Kaumorſok*. This name in their language has an immediate relation to the uſe which they make of this conſtellation. Theſe people get a great part of their ſubſiſtence from ſea-dogs. It is only by night that they can take theſe amphibious creatures. The appearance of the north ſtar is an advertiſement to the Greenlanders to get ready to go and hunt the ſea-dogs. Thus the name *Kaumorſok* which they give to Urſa Minor, ſignifies in their tongue, *Some one is gone out to take the ſea-dogs.* [m].

We remark alſo in the name which theſe people give to the Pleiades, a very ſtriking relation with the figure which that conſtellation preſents to the eyes. They call the Pleiades *Killukturſet*, which means *tied together* [n]. In effect, theſe ſtars touch ſo nearly in appearance, that they ſeem to be fixed to each other.

We may ſay as much of the ſtars which compoſe the head of the Bull. They repreſent well enough the form of the head of that quadruped. This reſemblance is even ſo ſtriking, that the moſt ſavage people have catched it. The nations which dwell along the river Amazon, call the

[l] Mœurs des ſauvag. t. 2. p. 239.

[m] Hiſt. nat. de l'Iſlande, & du Greenland, t. 2. p. 224. 225.

The author from whom I have taken this fact ſays, that the name of *Kaumorſok* given by the Greenlanders to the north ſtar, comes from this, becauſe that ſtar appears to come out and riſe from the ſea. His mind was certainly travelling under the equator when he writ that. I leave it to be judged if one could ſay this, for the people who are ſituated in 70 degrees of north latitude, that the polar ſtar ſeems to come out and riſe from the ſea.

[n] Ibid. p. 225.

Hyades

Hyades *Tapiira, Rayouba*, a name which ſignifies at this time, in their language, the *chops of the ox*[o].

That long white train which traverſes the whole heavens has received alſo, among moſt nations, a denomination very conformable to the object which it repreſents. The Greeks have called it *galaxy*, or *milky way*, on account of its whiteneſs. The Chineſe call it *Tien-ho*, the *celeſtial river*. Many nations have called it the *great road*[p]. The ſavages of South America deſign it by the name of *the road of ſouls*[q]. The peaſants in France call it *the road of St James*.

It is alſo probable enough, that the two ſhining ſtars in the head of Gemini might be deſigned by two ſimilar objects. The Greeks gave them the name of the two famous brothers, Caſtor and Pollux. They pretend, that in the ancient ſphere this conſtellation was deſigned by two kids[r]. The Arabians had placed there originally two peacocks. All theſe denominations are very natural, as theſe two ſtars ſpoken of, are the moſt remarkable of all thoſe which are diſcovered in that part of the heavens; and as they are nearly of the ſame magnitude and brilliancy, they have tried to deſign them by ſimilar objects.

The Chineſe may alſo ſupply us with ſome lights on the queſtion we have endeavoured to elucidate. The origin of Aſtronomy among that people aſcends to a very remote antiquity. We know that the Chineſe were a long time without borrowing any thing either from the people of Aſia or Europe[s]. The expreſſions uſed in the Chineſe a-

[o] Relat. de la riviere des Amazones par M. de la Condamine, dans les mem. de l'acad. des ſcienc. ann. 1745, M. p. 447.

About the word *Tapiira Rayouba* which ſignifies at this time among the Indians *the chops of the ox*, M. de la Condamine adds, I ſay at this time, becauſe that word ſignified formerly the chops of the *Tapiira*, an animal proper to the country; but ſince they have tranſported the European cattle into America, the Braſilians and the Peruvians have applied to theſe animals, the names which they gave in their mother-tongue to the largeſt of quadrupeds they knew before the coming of the Europeans.

[p] See le comment. de Hyde ſur les tables d'Ulug-Begh, p. 23.

[q] Mœurs des ſauvag. t. 1. p. 406.

[r] Hyde. hiſt. relig. veter. Perſar. c. 32. p. 391.

[s] See les obſervat. mathematiques-aſtronomiques faites aux Ind. & à la Chine, publiées par le P. Souciet, t. 1. p. 3. 4. & 5.

ſtronomy

ſtronomy may then give us ſome idea of the primitive denominations which are at preſent the object of our researches, ſo much the more as theſe people were attached, if one may ſay ſo, even to a fault, to their ancient practices. The Chineſe call, for example, the zodiac *Hoang-tao*, the *yellow road*. This denomination is natural enough. We there ſee a ſenſible relation to the annual courſe of the ſun, which he performs in the circle of the ſphere. The name of zodiac which we give to it after the Greeks, has not ſo much conformity with the phænomena which it preſents to the eyes. Thus the term zodiac is recent enough even in the Greek language. It certainly was not in the firſt ages of their aſtronomy. It is not ſeen, that ancient authors have uſed it. Yet the Greeks were not, till the time that name was introduced among them, without knowing the proper motion of the ſun, and without having a word in their language to deſign the circle which that ſtar ſeems to go over in the heavens. I ſhall be ſtrongly led to believe, that, in the firſt times, the zodiac had been deſigned by the name and emblem of *a girdle* which ſurrounds the heavens. This is the term which many nations, and particularly the Arabians and moſt of the people of the eaſt, ſtill uſe to expreſs the circle of the ſphere [t].

I alſo think, that the conſtellations, under which the moon and the ſun paſs, have not been originally deſigned by the names *Aries*, *Taurus*, and *Leo*, &c. It is more natural to believe, that they at firſt called theſe collections of ſtars, the *lodgings* or the *houſes* of the moon and of the ſun. It is thus that many nations of the greateſt antiquity have deſigned the ſigns of the zodiac [u].

[t] See le comment. de M. Hyde ſur les tables d' Ulug-Begh, p. 30. See alſo Les notes ſur Aulugelle, l. 13. c. 9. p. 669. not. (8). edit. in 8° de 1666.

[u] See Hyde, ſur les tables d'Ulug-Begh, p. 30.

The Chineſe word *ſou*, which we tranſlate *conſtellation*, does not anſwer, in the Chineſe idiom, to the idea which the conſtellation gives in our language. The groups of ſtars which the Europeans deſign by the word *conſtellation*, are called by the Chineſe *lodging*, *inn*, a denomination conformable to the ideas they muſt have originally formed of the ſigns of the zodiac.

But, ſay they, how could it happen that ſo ſimple and natural a practice ſhould degenerate into cuſtoms ſo whimſical as that which we follow? a cuſtom, moreover, which aſcends to a very remote antiquity. This is the manner in which, I conjecture, the change may have happened.

Aſtronomy could have made no progreſs, if, in the moſt early times, they had not taken care to couch in writing the different obſervations they had made. This muſt be preſumed then, though we have no direct proof of it at this time. We have ſeen in the firſt part of this work, that people were a conſiderable time without knowing alphabetic writing *. We have alſo ſeen there, that hieroglyphics were anciently the means they moſt generally practiſed to preſerve the memory of facts, of ſciences, and diſcoveries, &c. It cannot be doubted that they made uſe of this ſort of writing to aſcertain the firſt aſtronomical obſervations. Nothing is more common in hieroglyphic writing, than the repreſentations of men, of animals, &c. It is known, that theſe repreſentations often have a very oblique relation to the objects they were deſigned for. May it not then be ſuſpected, that, in theſe hieroglyphic figures, we ſhould look for the origin of thoſe whimſical names the conſtellations have among all nations?

It is more than probable, that, on the recital of their obſervations, the firſt aſtronomers joined the deſign of the conſtellations which they ſpoke of. But that deſign, probably, had no reſemblance to thoſe which modern aſtronomy uſes. The firſt men uſed the firſt manner, which the Chineſe ſtill uſe at this time. Theſe people had given names to conſtellations, and theſe names were relative to certain figures. Theſe figures, nevertheleſs, are not deſigned on their planiſpheres. The repreſentations of conſtellations were only expreſſed by lines which joined the ſtars to each other, according to the different forms to which the Chineſe had reduced them. They writ on

* Book 2. chap. 6.

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the ſide of theſe aſſemblages, the name of each ſtar, and of each conſtellations.[r] This method is much more ſimple than that which we uſe. In our planiſpheres, the figures by which we deſign the conſtellations are drawn, and the ſtars of which each conſtellation is compoſed, are arranged on thoſe figures. I think, that in the early times they uſed a quite different method. The ancient aſtronomers had probably repreſented the conſtellations in the taſte which the Chineſe had repreſented them; that is to ſay, without any figure, only joining together, by right lines, the ſtars which compoſe each conſtellation. I alſo preſume, that, to avoid errors and ambiguities, the firſt obſervators writ the name of each of the conſtellations on the ſide of its repreſentation; but that name, as I have juſt ſaid, was wrote in hieroglyphics. Let us examine the effect which this practice could produce in the ſucceſſion of ages.

The firſt way of writing aſtronomical obſervations, by drawing each conſtellation of which they would ſpeak, would become very troubleſome when the number of them was multiplied to a certain degree. They would then endeavour to ſhorten the work. It is natural to believe, that they would inſenſibly ſuppreſs the repreſentations. They would be content to deſign the conſtellations of which they would ſpeak, by the hieroglyphical ſymbol of their name. Thus, when they would, for example, deſign the conſtellation which we now call *Taurus*, ſuppoſing that a bull was formerly the hieroglyphic ſymbol of the name which they had given to that collection of ſtars, they would have drawn a bull; ſo of others. From this

[r] See Bianchini, la iſtor. univ. p. 283.; Acad. des inſcript. t. 18. mem. p. 271.

I have ſeen a Chineſe planiſphere ingraved at Pekin, perfectly conformable to that ſpoken of by M. Bianchini. It is difficult enough to know the conſtellations, conſidering that the poſition of the ſtars is very inexact, and very defective; but otherwiſe, this manner of grouping the conſtellations is infinitely preferable to that we follow at preſent, and which we had from the Greeks: by this means we find the conſtellations much more eaſily.

cuſtom, it has happened, that the conſtellations inſenſibly have taken the name of the principal ſymbols which have ſerved originally to write the name which they had at firſt given to theſe collections of ſtars, and that at laſt they had loſt ſight of the primitive denominations.

From hence, I think, we ſhould ſearch for the origin and the cauſes of theſe whimſical names which the conſtellations have among all nations. For though in early times hieroglyphic writing was the only means men knew of to paint their thoughts, yet it is not probable, that the way of uſing that ſort of writing was uniform. Each nation had its particular ſymbols. The denominations, for this reaſon, muſt have varied according to the difference of ſymbols. It muſt, of conſequence, have happened, that the conſtellations received different names, according to the different ſymbols which each nation uſed to write theſe ideas; and this is what is proved by the little that remains to us on this ſubject. We have already ſeen the difference there was between the Greek planiſpheres and thoſe of the Egyptians and Chaldeans. Theſe differences are ſtill more remarkable in the names which the inhabitants of Mogul and China give to the conſtellations[z].

If we had the key of this firſt writing, we ſhould know why certain conſtellations have received the name of certain objects preferably to others. What may be conjectured, is, as I have already ſaid, that the repreſentations of theſe objects joined probably to ſome other marks, have been employed originally to preſerve the firſt obſervations made on theſe conſtellations.

It is not even abſolutely impoſſible to penetrate the motives of ſome of theſe ſymbols. We ſee at firſt, that animated beings have been the ſymbol the moſt generally and the moſt frequently uſed.

Although it cannot be decided preciſely, what ſort of an animal that is by which Job deſigns the conſtellation which

[z] See les obſervations aſtronom. &c. faites aux Indes & à la Chine, publiées par le P. Souciet, t. 1. p. 247. & acta erudit. Lipſ. anno 1711, p. 387.

he calls *Aiſch*; it is not leſs certain, that this word ſignifies an animal, and probably a quadruped [a]. It is equally certain, that the people of Egypt, of Chaldea, and of Greece agree to deſign the conſtellations by living beings. What I am going to ſay of the practice of the ſavages, will make this truth ſtill more viſible.

The people of North America knew ſome conſtellations before the coming of the Europeans. They deſigned them by the names of men and animals [b]. The nations which border on the river of the Amazones, had attention to ſeveral fixed ſtars. To diſtinguiſh them, they have given them the names of animals [c].

We may join to all theſe barbarous and ſavage nations, the inhabitants of Greenland. It is by the name of a quadruped they deſign Urſa Major. They call that conſtellation *Tugta*, as much as to ſay, *Rein-deer* [d]. Let us now inquire, for what reaſon they have preferred living beings to every other object, to deſign the conſtellations.

The firſt aſtronomers had perceived that the ſtars had a very viſible and daily motion. To expreſs the motion of the ſtars in hieroglyphics, they would naturally chuſe the ſymbol of a living and moving being. By following theſe firſt hints, we ſhall ſee that this explication may have had place with reſpect to many conſtellations.

For example, one may give a reaſon for thoſe motives which may have determined certain nations to have made uſe of the ſymbol of a *Bear*, preferably to every other object, to deſign the north ſtars. The ancient aſtronomers ſaw the ſtars which compoſed the conſtellation of the *Bear* always to the north. The moſt remarkable animal to be met with in theſe countries is the *Bear*. They would therefore very naturally make uſe of that animal, to deſign the uſe of theſe ſtars. Thus we alſo ſee, that the ſa-

[a] See our diſſertation on the conſtellations ſpoken of in Job.
[b] Mœurs des ſauvag. t. 2. p. 236. & 238. t. 1. p. 410.
[c] Mem. de l'acad. des ſcienc. ann. 1745, m. p. 447.
[d] Hiſt. nat. de l'Iſlande et du Groenland, t. 2. p. 223.

vages

vages of North America, who uſe hieroglyphic writing, call this conſtellation the *Bear* [e].

It is eaſy alſo to ſhew, why that conſtellation bears the ſame name among the Greeks. Theſe people, as has been ſaid elſewhere, had received from Prometheus their firſt aſtronomical knowledge. This prince, as far as hiſtory teaches us, made his obſervations on Mount Caucaſus. The motives I have juſt hinted, would, without doubt, lead him to uſe the emblem of the *Bear*, to deſign the principal conſtellation of the north. The Greeks, who had received from Prometheus the firſt elements of aſtronomy, preſerved that ancient denomination, and have tranſmitted it to us, but in their way, that is to ſay, by joining to it many fables relative to the hiſtory of their country.

By means of this explication, we eaſily ſee, why, in the Egyptian and Chaldean ſphere, we find neither the name nor the figure of a bear [f]. There is no reaſon to think, that in the firſt times the Egyptians had knowledge enough of the countries of the north, to be informed that the bear was the moſt common animal in theſe countries. It is not then ſurpriſing that they made uſe of other ſymbols to deſign the ſtars near the pole *. We may apply what I have juſt ſaid of the Egyptians with as much reaſon to the Chaldeans.

Now, it is eaſy to conceive, from what motives many nations have deſigned the ſame conſtellations by different ſymbols. Theſe ſigns have varied relatively to the ideas

[e] *Supra*, p. 398. [f] *Ubi ſupra*, p. 396.

* Scaliger in Manil. p. 338. ſays, after Probus, that, in the ſphere of the barbarians, that is to ſay, of the people of Egypt and Chaldea, the polar ſtars were deſigned by the ſymbol of a *chariot*.

We may, I think, confirm this teſtimony by that of Homer. We ſee, in effect, that this poet names this collection of ſtars, *The Bear*; but he teaches us at the ſame time, that they alſo called this conſtellation the *chariot*. Iliad. l. 18. v. 487.; Odyſſ. l. 5. v. 273.

Should we not believe that it was from the Egyptians that the Greeks had learned this denomination? In effect, from the manner in which Homer expreſſes himſelf, it appears, that the name of *chariot*, given to the polar ſtars, was not ſo ancient as that of *bear*, introduced into Greece by Prometheus. It is certain, moreover, from the teſtimony of all the writers of antiquity, that the Greek aſtronomy was a compoſition of the Aſiatic and Egyptian aſtronomy.

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theſe people had formed of the conſtellations. Nevertheleſs, it appears in antiquity, they have agreed ſufficiently to repreſent conſtellations by the ſame ſymbols. We ſee, for example, that the Chaldeans, the Arabians, the Perſians, the Greeks, &c. have deſigned the emblem of a giant, to repreſent the conſtellation of Orion [g]. We ſhould attribute, without doubt, this uniformity of choice, to the great ſpace of the heavenly ground which that conſtellation occupies.

It is alſo very probable, that the conſtellation of the Bull was originally deſigned by the ſymbol of that animal. I have ſaid, that by the manner in which the ſtars of the Bull are diſpoſed, they repreſent well enough the form of the head of a quadruped [h]. We have alſo ſeen, that the ſavages of South America have given to that conſtellation the name of *The chops of the ox* [i]. We may then think, that, for the deſign of that collection of ſtars, they would chuſe an animal whoſe figure had the greateſt reſemblance to theſe ſtars in the firmament.

There is alſo great appearance, that the dragons, the hydras, the ſerpents, and the rivers, have only been invented and introduced into the heavens, with a view to collect under one figure a conſiderable ſeries of ſtars. We might extend this plan of analogy to many other conſtellations; but this is enough, and even perhaps too much, for conjectures.

It appears to me then probable, to attribute to the ſymbols of hieroglyphic writing, the origin of the whimſical figures and names uſed to deſign the conſtellations. I alſo do not doubt, that theſe ſame ſymbols have given riſe to all the ridiculous tales which have been propagated about the celeſtial ſigns. They loſt inſenſibly the view of the motives of theſe firſt denominations. Then the people gave a looſe to their imagination. The Greeks furniſh us a convincing proof of it.

[g] Chron. Paſchal. p. 36. A.; Hyde, comment. in tabul. Ulug-Begh, p. 814.; Homer. Odyſſ. l. xi. v. 571.

[h] *Supra*, p. 399. [i] *Supra*, p. 402.

Theſe

These people had received from Asia and Egypt the first principles of astronomy. It is to be believed, that the Asiatics and the Egyptians had communicated to them at the same time, the terms which they had consecrated to that science. But whether the colonies of Asia and Egypt did not explain to the Greeks the origin and motives of these names, or, what is more probable, the Greeks did not think proper to retain them. These symbols presented to them too good an opportunity of exercising the fecundity of their imagination to let it slip: they found in it a double advantage, that of uttering marvellous fictions, which have always had a singular attractive with that people; the other, of satisfying their vanity. For the reigning passion of the Greeks has always been, to pass as the inventors of arts and sciences.

They did the same then with respect to the names and symbols by which the colonies of Asia and Egypt had taught them to design the constellations, as they had done with regard to all the ancient traditions they had drawn from the eastern nations. They changed the symbols by which these people had designed the constellations. For the names and figures which the constellations had in the east, the Greeks substituted most of their heroes and other famous personages. It is in this consists the difference that is remarked, according to the testimony of the ancients, between the sphere of the Greeks and that of other nations. For it must not be thought, that that difference regarded the arrangement and number of constellations. The contrary is proved to us by too many testimonies to be doubted of. The Greeks did not form the constellations. They were indebted for that knowledge to the eastern nations *. But

* Among an infinity of testimonies which I could cite, I shall only mention that of Seneca. That philosopher says, that, in his time, it was not 1500 years that the Greeks had given names to the constellations. Nat. Quæst. l. 7. c. 25. p. 887. Astronomy had already flourished a long time in Egypt and Asia, and then came with the colonies from these countries to pass into Greece. But the epocha designed by Seneca, and which falls about 1400 years before J. C. is that in which the Greeks deified most of their heroes.

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in preſerving the ſubſtance of the primitive ſymbols, they had altered them by introducing conſiderable differences as well in the names as in the figures.

For example, the Egyptians had deſigned the conſtellation Cepheus by a man, and that of Andromeda by a woman. The Greeks thought proper to accommodate theſe ſymbols to their ideas, to make of it a king and a princeſs of Ethiopia; and, by a neceſſary conſequence, to change the attitude, the dreſs, and the name which theſe figures bore in the Egyptian planiſpheres. So of others. With reſpect to the ſymbols which the Greeks only changed a little, their origin was not leſs diſguiſed by the fables they invented to explain the motives of their inſtitution. This is the ſource of all the abſurd tales which the writers of that nation have propagated about the origin of the zodiac and other conſtellations [k]. The more obſcure the ſubject was, the greater ſcope was given to their imagination. It would be loſing time then to look for, in the early times, the origin of the names and figures by which we at this time deſign the conſtellations. Theſe ſymbols have ſuffered too great a change, by paſſing through the hands of the Greeks, for us to be certain at this time of the true motives which had determined the choice. It is certain, that this practice aſcends to the earlieſt ages of aſtronomy; but we muſt attribute to the vanity of the Greeks, and to the taſte which they always had for fables, the uncertainty and obſcurity there is about the origin of a cuſtom adopted in practice by all the nations of the univerſe.

Further, the conjectures which I propoſe about the changes introduced by the Greeks in the ſymbols which the aſtronomers in the eaſt made uſe of to deſign the conſtellations, are not totally void of foundation. We frequently find in the Egyptian monuments, many figures of the celeſtial

[k] See Salmaſ. de ann. climact. p. 592. 593. & ſeq.

ſigns [l]. We there ſtill recogniſe the veſtiges of uſages practiſed by the firſt authors of aſtronomy [*].

For the reſt, the Greeks have not been the only ones to whom the primitive denominations of the conſtellations have furniſhed a ſubject for many abſurd tales. We have before ſeen, that the ſavages of North America knew the conſtellations of their pole, and that they called Urſa Major *Okouari*, which in their language ſignifies a *Bear*. Their imagination buſied itſelf very much about the name of that conſtellation. They ſaid, that the three ſtars which compoſed the tail of Urſa Major, were three hunters who purſued him. The ſecond of theſe ſtars is accompanied with a very ſmall one which is very near it. That, ſay they, is the hamper of the ſecond of the hunters to carry the baggage and proviſion [m]. They pretend, that the ſavages of Gaſpeſie knew not only Urſa Major, but alſo Urſa Minor. The tales which they have forged about this laſt conſtellation, are not leſs ridiculous [n].

I ſtill think to find from this ſource, that is to ſay, in hieroglyphic writing, the origin of ſome whimſical terms which have obtained a long time in the aſtronomical language.

[l] See Blanchini, la iſtor. univer. p. 111.

[*] What we have advanced would even be abſolutely without doubt, if we might refer to P. Kircher That vaſt compiler has given a figure of a planiſphere which he pretends to be that of the ancient Egyptians. On comparing with it that of the Greeks, which is alſo ours, he ſhews, that there is only the difference between them that we have remarked. Oedip. Egypt. t. 2. p. 2. claſſ. 7. ſect. 7. c. 1. & 2. p. 160. & 206.

But this is not the only time that we have ſeen the neceſſity of ſuſpecting the ſyſtems propagated by P. Kircher. The planiſphere of which we ſpeak, appears to me very ſuſpicious. I would ſo much the leſs warrant the antiquity and authenticity of it, as we ſee there conſtellations repreſented by ſymbols, which we certainly know were not uſed in the celeſtial globe of the ancient Egyptians, ſuch as Urſa, Draco, Libra, and Gemini. But even ſuppoſing the authenticity of the planiſphere in queſtion, it would ſtill be neceſſary to inquire into the age of this monument. For ſince the reign of the Ptolemies it is not to be doubted, that the Egyptian aſtronomy has favoured much of the expreſſions and figures of the Greek aſtronomy. It could only then have happened from the diſcovery of an Egyptian planiſphere, conſtructed before the reign of the Ptolemies, that could have inſtructed us with certainty of the ſymbols uſed by the ancient Egyptians to deſign the conſtellations.

[m] Mœurs des ſauvages, t. 2. p. 236. & 238. [n] See ibid.

Our-

Our ancient aſtronomers called the *head* and *tail* of the *Dragon*, the two points of interſection of the ecliptic and of the orbit of the moon. They named the *belly of the Dragon*, that part of theſe circles where they find the greateſt latitude of that planet*. Is there any thing more whimſical than this denomination? What relation is there between a dragon, a chimerical animal, and the celeſtial phænomena? But by recalling the manner in which the ancient nations writ their aſtronomical obſervations, we ſhall perceive in that expreſſion a remnant of the ancient denomination, which owed its origin to hieroglyphics. The Egyptians deſigned age, time, by the form of a ſerpent, which by biting the tail made a circle °. It even appears, that this figure of a ſerpent was not a true one. For the Greeks, in tranſlating the name which that reptile had in the Egyptian language, have rendered it by that of baſiliſk, as fabulous an animal as the dragon ᵖ. Thus to repreſent the world, the Egyptians painted a ſerpent covered with ſcales of different colours, rolled about himſelf. We know by the interpretation that Horus-Apollo gives to the Egyptian hieroglyphics, that, in this ſtyle, the ſcales of a ſerpent repreſented the ſtars with which the heavens are ſown ᵠ. We learn alſo from Clemens Alexandrinus, that the Egyptians deſigned the oblique motion of the ſtars, by the twiſted folds of a ſerpent ʳ.

The Egyptians moreover have not been the firſt who uſed the emblem of a ſerpent to deſign the courſe the ſun makes in running through the twelve ſigns of the zodiac.

Among the Perſians and many other nations, Mithras was the ſame as the ſun ˢ. In all the monuments which now remain to us of this god, we perceive among many other emblems ſome ſigns of the zodiac, ſome ſtars very plainly marked, with the planets or at leaſt their ſymbols. One

* It is only in theſe points of interſection that eclipſes are made.

° Hor. Apollo. l. 1, c. 1. ᵖ Ibid. ᵠ Ibid.

ʳ Strom. l. 5 p. 657.

M. Cuper has proved by an infinity of reaſons, that Harpocrates is the ſun. We ſee under many repreſentations of this god, a ſerpent embracing a demi-column, and forming about it many twiſted folds. There is no doubt, that this reptile was intended in theſe repreſentations to deſign the obliquity of the ecliptic. See l'explication des fables par l'Abbé Banier, t. 2. p. 356.

ˢ Banier, ibid. t. 3. p. 156.

cannot help regarding theſe baſs relievos as a ſort of celeſtial planiſpheres [t]. Every thing evidently declares, that they had an intention to repreſent the revolutions of the ſun, of the planets, and of the fixed ſtars. Here is what Celſus ſaid of them, according to the report of Origen. "We ſee," ſays he, "in the doctrine of the Perſians, and in the myſteries "of their Mithras, the ſymbol of two celeſtial periods, of "that of the fixed ſtars, and that of the planets, and of the "paſſage the ſoul makes by theſe [u]." We ſhould then look upon all theſe repreſentations as the remains of ancient hieroglyphic writing.

Among many of theſe repreſentations of Mithras, there is one in particular very complicated. I ſhall not undertake to give the deſcription of it. I ſhall only ſpeak of the crowning of this baſs relief. It is very ſingular. It is a ſeries of figures on the ſame line, of which the firſt is a ſun ſhining with his rays, and mounted on a car drawn by four horſes which appear greatly agitated, and look towards the four parts of the world. Near the car is a naked man, a ſerpent twiſted into four folds, from the feet to the head. We afterwards ſee three burning altars, and among theſe altars three large ſquare viols, afterwards another naked man twiſted about by a ſerpent like the former. We find theſe four altars with as many viols. The moon upon her car, drawn by two horſes, which appear extremely fatigued, terminates theſe figures. The inſpection alone of this monument announces, that they meant to deſcribe there the courſe of the ſtars. We ſee, that the ſpirals which reſult from the combination of the diurnal motion of the ſun, with his motion of declination, are deſigned under the emblem of theſe two figures twiſted about with ſerpents [x].

The uſe that many other nations made of this ſymbol, is atteſted by a number of monuments, is in a manner ſo po-

[t] Bannier, ibid. t. 3. p. 156.
[u] Origen *contra* Celſum, l. 6. p. 290.
[x] Bannier, explicat. des fables, t. 3. p. 171. 180. 183.

ſitive,

ſitive, that there can no doubt remain on this ſubject [y]. Among a great number which one might make uſe of, there is none more ſtriking than the trunk of a ſtatue found at Arles in the year 1698. The body of that figure is twiſted with a ſerpent which makes four turns, although there appear only three in the front. The ſpaces formed by the windings of the ſerpent, are taken up by the ſigns of the zodiac *. It is not to be doubted, that they would repreſent by this emblem, the paſſage of the ſun through the twelve ſigns, and his diurnal motion from one tropic to another, which, in appearance, he makes by ſpiral lines.

We find, even among the nations of America, the ſymbol of a ſerpent, to deſign the revolution of the ſtars. The Mexicans, as we have ſeen [z], expreſs their thoughts by hieroglyphics. It was in this manner that their cycle and year were repreſented. A wheel painted of many colours contained the ſpace of a cycle diſtinguiſhed by years. Their cycle was of fifty-two ſolar years. Four indictions, of 13 years each, form the diviſion of the wheel, and anſwer to the four points of the horizon. A ſerpent ſurrounded this wheel, and marked there by his knots the four diviſions [a].

It is then certain, that they uſed hieroglyphics to preſerve the firſt aſtronomical obſervations. We have ſeen in the firſt part of this work, that all the myſteries which they pretended to have found in hieroglyphics, are only chimeras. Theſe ſymbols uſed by all nations, were only a ſort of very rude and very defective writing. Nothing hinders us to believe, that theſe are the ſame ſymbols which have afterwards given birth to a number of ſingular expreſſions uſed in aſtronomy.

Yet what can have given room to that intimate perſuaſion, in which all the ancient people were, and which ſtill ſubſiſts at this time among almoſt all the nations of the eaſt, and even among the ſavages in America, that the

[y] Bannier explicat. des fables, t. 5. p. 493 &c.

* We may ſee this figure, and the explication given by P. Montfaucon, Antiquité expliquée, t. 1. part 2. p. 370. planche 215. fig. 3.

[z] Part 1. b. 2. c. 6. p. 174. & 176.

[a] Gemelli has given this figure of the cycle of the Mexicans with his explication. Giro del mondo, t. 6. c. 5.

eclipſes

eclipſes of the moon are occaſioned by a dragon which would devour that ſtar? The fear they are in brings them to make the greateſt noiſe they can, to frighten the monſter, and make him quit his prize. Ought we not to put this ridiculous opinion in the number of thoſe philoſophical expreſſions, which, being ill interpreted by the people, have given birth to a number of very abſurd fables? Did it not come from this, that originally to deſign the periodical circle of the moon, they uſed the emblem of a dragon, whoſe head was placed at the point where that circle cuts the ecliptic, becauſe it is always at that point, or at its oppoſite that the eclipſes of the ſun are made? What we have juſt ſeen about the ſerpent uſed by the Egyptians and other nations, in their aſtronomical hieroglyphics, has engaged me to propoſe this conjecture. When alphabetical writing was introduced among policed nations, the ancient manner of writing was aboliſhed; but the denominations which they had occaſioned, have always ſubſiſted, particularly with regard to many objects of the ſciences.

One laſt reflection, in a word, which proves to us how little able we are to judge at this time of original practices, is, that we are nowiſe certain that the names of the figures uſed in our aſtronomy, were the ſame in the firſt ages of Greece. Every thing, on the contrary, proves to us, that the names and the figures of the conſtellations had been changed among theſe people. I ſhall ſpeak of it in the following books.

There only now remains a word to be ſaid of the origin of the aſtronomical characters by which we deſign the ſigns of the zodiac. Some authors will have it, that the Egyptians were the inventors of them. A modern critic pretends, that he diſcovers there, even at this time, traces of the Egyptian origin. Theſe are, according to this author, veſtiges of curiological hieroglyphics, reduced to a character of common writing like that of the Chineſe. This diſtinguiſhes itſelf more particularly, ſays he, in the aſtronomical

nomical characters of Aries, Taurus, Gemini, Libra, and Aquarius [b].

I do not look upon this obſervation as a convincing proof, that we ſhould aſcribe to Egypt the inſtitution of the aſtronomical characters of the zodiac. Firſt, there are authors who attribute this invention equally to the Chaldeans and Egyptians [c]. In the ſecond place, the aſtronomical ſymbols by which we at this time deſign Gemini and Libra, ſurely do not come from theſe laſt. We have ſeen, that theſe people did not know Caſtor and Pollux, which the Greeks have put for the third ſign of their zodiac. The ſame reflection has place with reference to the aſtronomical character of Libra. The ancient aſtronomers of Egypt could not have been the authors. In the ancient ſphere, the ſigns of Virgo and Scorpio immediately follow them. Scorpio alone took up the ſpace of two ſigns. The forceps or pincers made the ſign which afterwards was deſigned by Libra, and that conſtellation was not introduced into the heavens until the time of Auguſtus [d].

It may be thought, it is true, that aſtronomy having had its birth in the eaſt, it ſhould alſo have been from theſe people, that the manner of deſigning the conſtellations of the zodiac by ſymbolical characters ſhould have come to us. Theſe characters then ſhould be looked upon as the remains of the ancient hieroglyphical writing; but it is preciſely for this reaſon that its origin may be equally attributed to the Chaldeans and the Egyptians.

Theſe characters, moreover, have ſuffered great alteration. We ſee conſiderable differences between the figures which we uſe at this time, and thoſe uſed by the ancient aſtronomers *.

[b] Eſſai ſur les hieroglyphes des Egyptiens, p. 285.
[c] Hygin. *apud* Kircher, Oedip. Egypt. t. 2. claſſ. 7. c. 6. p. 196.
[d] See Servius, *ad* Georg. l. 1. v. 33.
* We may ſee the figure of theſe aſtronomical characters in Salmaſ. *Plin. exercit.* p. 1235. & ſeq.
M. Huet has alſo cauſed them to be ingraved in his remarks on Manilius, p. 80.

DISSER-

DISSERTATION II.

On the names of the Planets.

WE muſt believe that men, as ſoon as they had any knowledge of the planets, thought of diſtinguiſhing each by a proper name. There has been great variety on this ſubject among the ancient nations. It will not be eaſy to give a reaſon for all the different names given to the planets in antiquity. Thoſe by which we now deſign them came to us from the Romans. Theſe people notwithſtanding were not the authors of theſe denominations; they had borrowed them from the Greeks, and had applied to the planets the names, which, in their language, anſwered to thoſe which the Greeks uſed to deſign theſe ſtars. That was thoſe of their principal divinities.

But theſe names are not of the firſt antiquity. They could not take place before the times, in which the people having decreed to their heroes divine honours, thought of placing them in the heavens. It was then that they gave to the planets the names of the principal divinities which they adored, and which they made the ſame with the objects of their worſhip. This cuſtom, farther, could not have been introduced till ſome time after the birth of theſe new divinities. Their apotheoſis, it is true, followed from the inſtant of their death [a]; but ſtill it muſt have happened that theſe new worſhips muſt have been eſtabliſhed and known, to have changed the primitive names of the planets. Yet it cannot be ſuppoſed that the people would ſtay till the time of theſe deifications, without giving names to the ſtars which they had obſerved. The contrary indeed is proved by hiſtory. Though, in proceſs of time, they have often confounded the ſun with Apollo, and the moon with Diana, it is certain, that in the ancient mythology

[a] Eſſai ſur les hieroglyphes des Egyptiens, t. 1. p. 312. & ſeq.

theſe

theſe objects were plainly diſtinguiſhed [b]. It is then proved, that they had given originally to the planets other names than thoſe of the divinities, by which they deſigned them afterwards. It is theſe firſt denominations that it is proper to inquire after.

Every thing leads us to think, that the firſt obſervators deſigned the planets by names which had an immediate relation to the moſt ſenſible qualities of theſe ſtars. In this reſpect, they had nothing to do but to follow the practice of theſe ancient times. We are not ignorant, that, in the firſt ages, each name expreſſed the nature and the properties which they attributed to the object denominated. The names by which the ſun and the moon are deſigned in the ſacred books, expreſs the known qualities of theſe planets. The ſun is called *Schemes* and *Kammah* [c]. Theſe two names have an immediate relation to the moſt ſenſible qualities of that ſtar. The one, *Schemes*, deſigns his brightneſs and his ſplendor; the other expreſſes his heat and activity *. The moon is named *Labanah*, a denomination which was given to her from her colour [d].

The Aſſyrians and Babylonians originally named the ſun *Adad*, that is to ſay, *ſingular* [e]; a denomination founded on this, that none of the ſtars are comparable in luſtre and utility to him. The Phrygians, a very ancient people,

[b] See le Clerc not. *in* Heſiod. Theog. p. 68. & 128.; Bannier, explicat. des fables, t. 4. p. 140. 162. 164. 208. & ſeq.

[c] שמש et חמה Geneſ. c. 37. v. 9. Job. c. 30. v. 28.; Song of Sol. c. 6. v. 10.; Iſaiah, c. 24. v. 23. c. 30. v. 26.

* שמש *Schemes*, comes probably from the Arabian root *Schamaſh*, which ſignifies *ſplenduit, claruit, micuit, to glitter, to ſhine.*

We may alſo ſay, that the word שמש *Schemes*, takes its etymology from two Hebrew words שם אש *Scham, eſch*, which ſignify, *that it is fire*, or *heat*, or *light*. Then this name may have been given to the ſun on account of its heat, and becauſe it is regarded as the focus of our world. The ſun is alſo called חמה *Kamah*, from the root חמם *Khamam*, which ſignifies to have *heat*, to be *hot*; *Khamah* ſignifies alſo *heat*.

[d] Iſ. c. 24. v. 23.

The word לבנה *Labanah*, comes from the root לבן *Laban*, which ſignifies *whiteneſs*.

[e] Macrob. Saturn. l. 1. c. 23. p. 312.; Voſſ. de idol. l. 2. c. 6. p. 125. col. 8.

worſhip it under the ſame name [f]. It is alſo for this reaſon, that the Phœnicians, at the beginning, called the ſun *Beelſamen*, a name which, in their language, ſignifies *Lord of heaven* [g].

The Phœnicians and Aſſyrians gave to the moon the name *Aſtarte*, queen of the heavens [h]; without doubt, becauſe that planet ſurpaſſes in magnitude all the other ſtars which ſhine in the heavens during the night. The Aſſyrians and Babylonians called alſo the moon *Ada, Singular* [i], for the ſame reaſon that they had called the ſun *Adad*.

We remark the ſame conformity in the primitive names by which the Egyptians deſigned the planets. I ſaid elſewhere, that thoſe whoſe luſtre was the moſt ſtriking, were the firſt that were known. That quality, without doubt, would ſuggeſt to men the names which they originally gave to the ſtars. In Egypt they had given to Venus a name which the Greeks had rendered, in their language, *Calliſta, very beautiful*, or rather *the moſt beautiful* [k]. In effect, there is no planet which equals Venus in luſtre and beauty *. With reſpect to Mars, the Egyptians deſigned him by a word in their language which ſignifies to *fire*, a denomination which anſwers very well to the colour of that planet. Mercury had received among them the name of *Sparkling*, a denomination which agrees perfectly well with that ſtar. With reſpect to Jupiter, they called him by a word which means *ſhining* [l].

It is not ſo eaſy to give a reaſon for the firſt name of Saturn. The Greeks have rendered the name which

[f] Heſychius, *in voce* Ἀδάδ.

[g] Sanchon. *apud* Euſeb. p. 34. C. [h] Voſſ. de idol. p. 151. col. B.

[i] Voſſ. ibid. p. 125. col. B.

[k] Manetho, in chron. Paſchale, p. 46. & 47.; Jul. Firmic. l. 2. c. 2.

* It is for this reaſon, that in many provinces they never call Venus any thing but the *beautiful ſtar*. See le Clerc. not. *in* Heſiod. p. 41.

[l] Jul. Firmic. l. 2. c. 2.; Manetho, *loco cit.*

The Greeks had rendered all theſe names in their language by thoſe of Πυρόεις, or Πυρώδης, Στίλβων, & Φαέθων. I have given the tranſlation in the text.

that

that planet had received originally from the Egyptians, by Φαίνων, which in their language ſignifies *luminous, apparent* [m]. It muſt be confeſſed, that this qualification does not appear to agree with that ſtar, which has very little luſtre; unleſs we ſay that this word might be ſuſceptible of another interpretation, about which notwithſtanding we can determine nothing *.

The Greeks uſed the ſame method with other nations, with regard to the names they gave to the planets in early times. To deſign the ſun, they borrowed from the Phœnician language, the word *Helojo* †, which ſignifies *high*; from whence they made, according to the analogy of their language, *Helios* ‡. The property of being extremely elevated above the earth is common to all the ſtars; but as of all the celeſtial bodies the ſun is the moſt ſtriking, it is not ſurpriſing that they have applied it to him preferably to all the others [o].

The Greeks gave likewiſe to the moon the name *Selene*, a name which comes from another Phœnician word, which ſignifies to *paſs the night* ‖. This name is ſo naturally applicable to the moon, that it would be ridiculous to endeavour to elucidate the motives of a choice the reaſons of which are ſo eaſily diſcovered.

With reſpect to the other planets, we ſee by the moſt ancient authors, that they bore originally among theſe people, the ſame denominations as among the Egyp-

[m] Jul. Firmic. *locis cit*; Achil. Tat. iſag. c. 17. *init.*

* Riccioli Almageſt, l. 17. c. 1. believes that Saturn had been called Φαίνων, that is to ſay, properly *he who ſhews himſelf*, becauſe, of all the planets, his conjunctions with the ſun laſt the ſhorteſt time. Saturn finds himſelf ſoon diſengaged from the rays of that ſtar, on account of the ſlowneſs of his own motion. Whereas Mars, for example, whoſe motion approaches nearly to that of the ſun, follows that ſtar for a pretty conſiderable time, immediately after their conjunction; it is for this reaſon, that Mars does not go ſo quick out of the rays of the ſun.

† עליא. ‡ Ἥλιος.

[o] Le Clerc. not. *in* Heſiod. p. 68.

‖ שלנה *Schelanah*, le Clerc. *loco cit.*

tians [o]. This is a proof, that the Greeks had received them from Egypt, as well as the firſt elements of aſtronomy. They only made ſome changes in theſe names, to accommodate them to the genius of their language *.

The Chineſe appear to have been the only ones among the policed nations who have given to the planets names, which it will be difficult to penetrate into the reaſons of. They reckon five elements, *earth, fire, water, wood,* and *metals*. The Chineſe made uſe of theſe names, to deſign the five planets other than the ſun and moon. They applied the earth to Saturn, wood to Jupiter, fire to Mars, metal to Venus, and water to Mercury [p].

But let us remark at the ſame time, that Venus bears alſo among the Chineſe, another name beſides that I have juſt mentioned. They call her alſo *Tai-pe* which means *very white* [q]. This denomination proves two things to us. The firſt, that the Chineſe, like all other nations, had deſigned that planet by a name analogous to its moſt

[o] Homer deſigns Venus by the epithet of Κάλλιστος, Iliad. l. 22. v. 318, See alſo Plato *in* Epinomi, p. 1012.; Ariſt. *de* mundo, t. 2. p. 602.

It is true, it is doubted whether theſe two tracts are Plato's and Ariſtotle's; but whoever have been the authors, they are certainly very ancient.

Eratoſthenes, c. 43. uſes the ſame term. The text of that author, ſuch as we have it now in print, is very much corrupted in this place.

* The author of Epinomis inſinuates it plainly enough, p. 1012.

What Plato ſays in Cratyll. p. 281. on the etymology of the word πῦρ, which in Greek ſignifies *fire*, is a farther proof. Plato agrees that the Greeks had borrowed that word from the Barbarians. It is plain that πυρόεις, the primitive name of the planet Mars, comes from πῦρ. Salmaſius pretends that this word is purely Egyptian. *De ann. climact. p.* 596.

It farther appears, that Φαίνων is an oriental word which comes from the Hebrew פנה *Phanah, apparere, lucere*. This is not even a mere conjecture. We have ſeen that this was the primitive name of Saturn among the Egyptians. Valens ſays alſo, that the Babylonians called the planet Saturn, Φαίνων. Salmaſ. *loco ſupra cit.*

About all theſe etymologies one may conſult Voſſius de idol. l. 2. c. 22. & 31.; &c. & les reflections critiques ſur l'hiſtoire des anciens peuples par M. Fourmont, t. 1. l. 2. c. 7. & ſeq.

[p] Martini, hiſt. de la Chine, l. 1. p. 22. & 23.; Hyde, hiſt. relig. veter. Perſar. p. 221.

[q] Hyde, *loco cit.*

apparent

apparent quality. The ſecond, that this name is, without contradiction, the primitive denomination that Venus had received among theſe people. According to all appearances, this planet was the firſt that fixed their attention. In conſequence, they had given it a ſimple name, drawn from the quality which had ſtruck them moſt. It was only afterwards, when the Chineſe had diſcovered the four other planets, that they looked for a name which might be common to theſe five ſtars. It was then probably that theſe people changed the ancient name they had given to Venus *.

The practice of ſavage and barbarous nations will ſerve to confirm what I have juſt ſaid about the origin of the firſt names given to the planets.

The ſavage people of America, as we have already ſeen elſewhere, only knew a very ſmall number of ſtars. Yet they had thought of giving them names. Theſe denominations, with reſpect to the planets, have a perfect conformity with thoſe which theſe ſtars had received in the firſt times, among the people of our continent. The names which the ſavages of North America gave to the ſun and the moon, are relative to the exterior and ſenſible qualities of theſe ſtars. They name the ſun *Ouentekka: He bears the day* [r]. They call the moon *Aſontekka: She bears the night* [r]. Venus has not eſcaped from their obſervations. The name which they give to that planet, characteriſes it perfectly. They name it *te Ouentarihaonitha: She proclaims the day* [t].

* It is from M. de Guignes, of the royal academy of inſcriptions, royal profeſſor and interpreter of the Chineſe, that I am indebted for all that I have ſaid in the preceding diſſertation and this, on the Chineſe denominations of the conſtellations and planets.

[r] Mœurs des ſauvages, t. 1, p. 135.

I have tranſlated *Ouentekka, He bears the day*, to accommodate myſelf to the genius of our language; for according to the letter it ſhould be ſaid, *She bears the day*, the ſun being of the feminine gender among theſe people.

[r] Ibid.

[t] Mœurs des ſauvages, t. 2. p. 235.

This word has the ſame ſignification as Ἑωσφόρος among the Greeks, and *Lucifer* with the Romans.

It does not appear that the Peruvians, although ſufficiently inſtructed in aſtronomy, have paid any great attention to the planets. I think thus becauſe they have not diſtinguiſhed them by particular names. Nevertheleſs the luſtre of Venus had ſtruck them. The Peruvians had ſearched for a word proper to deſign that planet. The name which they had given her, like that of all the ancient nations, was taken from her principal quality. They called her *Thaſca*, *Hairy* [a], without doubt, becauſe of the rays with which ſhe is always ſurrounded.

But, as I have already ſaid, the nations of the eaſt and of Europe have not always ſtuck conſtantly to the primitive denominations. The people, full of acknowledgment to the great men who had heaped benefits upon them, decreed them divine honours. They then thought of placing them in the heavens. They could not find a more convenient retreat for theſe new gueſts, than the planets. From hence theſe names of certain gods, ſuch as Oſiris, Mercury, Saturn, Jupiter, Thuras, Venus, &c. which they had given to the planets among many nations. But we ſee that at the ſame time theſe new names have not aboliſhed the memory of the primitive denominations. Theſe firſt veſtiges of antiquity had ſubſiſted, among the Egyptians and the Greeks, a long time after the ages in which theſe people, having reſolved to place in the heavens the ſouls of their heroes, had in conſequence given their names to planets [*].

As to the characters by which the aſtronomers at this time deſign the planets, many authors think that they are very ancient. They even think, that they there find traces of uſages practiſed in the moſt early ages [*].

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[a] Hiſt. des Incas, t. 2. p. 36.

[*] Plut. *de* placit. philoſoph. l. 2. c. 15. p. 889.; Achil. Tat. iſag. c. 17.; Gemin. c. 1. *apud* Petav. Uranol. p. 4.: Hygin. aſtron. l. 4. c. 15. & ſeq.; Cleomedes meteor. l. 1. p. 16.; Cenſorin. de Dei nat. c. 13.

[*] Scaliger, in his notes on Manilius, ſays that a proof that the aſtronomical characters which we uſe for the planets are of a very great antiquity, is, that we find the ſame characters ingraved on many very ancient ſtones and rings.

I think, that we ſhould aſcribe the invention of theſe characters to the people of the eaſt, and that they are the remains of the firſt manner of writing in hieroglyphics. The Greeks, from whom we have this abridged way of deſigning the ſtars, have probably received them from the eaſtern nations: but there is greater reaſon to think that the particular form of each character has ſuffered great changes relatively to the times and the places where they were uſed. It is certain, that they had not given originally to the planets, the names of the gods by which they afterwards deſigned them. It is equally proved, that the ancient nations were not unanimous about the names of the divinities which they had attributed to theſe ſtars [y]. The aſtronomical characters muſt, of conſequence, have varied according to the different denominations. The attributes of ſome could not agree with thoſe of others.

It muſt be agreed, that the characters which we uſe at preſent, are different enough from thoſe found in the writings of the ancients. We need only compare them, to be convinced of it *. I ſhall then be led to look upon

rings. He thinks that the aſtronomical character ♄ of Saturn, means the ſcythe of *time* which cuts down all things.

That of Jupiter ♃ the firſt letter of the name of God in Greek, with an interſection.

That of Mars ♂ an arrow with a ſhield.

That of Venus ♀ a mirror with a handle.

That of Mercury ☿ the caduceus.

It is alſo the opinion of Riccioli Almageſt. l. 7. c. 1.

This reaſoning will prove at leaſt, that theſe characters came to us from the Greeks; but they certainly are not of the firſt antiquity. They could only take place ſince the time that they attributed the names of the divinities to the planets.

[y] See Achil. Tat. iſag. c. 17.; Macrob. Saturn. l. 1. c. 21. p. 303. l. 3. c. 12. p. 412.; Herod. l. 2. n. 144.; Diod. l. 2 p. 143.; Ariſt. de mundo, c. 2. p. 602.; Plut. *de* Iſide & Oſiride; Scholiaſt. Apollon. *ad* l. 3. v. 1376.; Plin. l. 2. c. 8. p. 75. & 36.; Apuleius *de* mundo, p. 169.; Hygin. aſtron. l. 2. c. 42. p. 416.; Chron. Paſchale, p. 37. D. Tim. Locrus *de* anima mundi *apud* Plat. p. 1091.; Auguſtin. de civit. Dei, l. 7. c. 15.; Voſſ. *de* idol. l. 1. c. 16. l. 2. c. 27. 31. 32. & 33.; Plin. exercit. p. 1235. & 1236.

By comparing the different paſſages of theſe authors, it will be ſeen how much the ancient nations varied about the names of the divinities which they attributed to the planets.

* See the figures of the ancient characters referred to by Salmaſius, Plin. exercit. p. 1235. & ſeq. and in the remarks of M. Huet on Manilius, l. 5. p. [illegible]

the

the Arabians as the authors of theſe changes, and to think, that we have received from theſe people the form of the aſtronomical characters which we uſe at preſent. This conjecture is founded on this, that we deſign the planets in aſtronomy, and metals in chemiſtry, by the ſame characters. Now, all the world agrees, that chemiſtry came to us from the Arabians. There is great reaſon to think, that having alſo been obliged to them for the renewal of aſtronomy, we have received from theſe people the ſigns uſed by them in both theſe ſciences.

The cuſtom of making each day of the week anſwer to a planet, is very ancient. Herodotus, and other writers, attribute to the Egyptians the origin of this cuſtom [a]. There are ſome, notwithſtanding, who aſcribe it to the Chaldeans, to Zoroaſter, and Hyſtapes [a]. Be this as it will, it is very probable, that this cuſtom took its riſe in the eaſt. We know, that, from time immemorial, the eaſtern nations made uſe of weeks compoſed of ſeven days [b]. Without doubt, each day of the week received the name of the planet under whoſe denomination the ancients were perſuaded it was. It is true, there is no relation between the order which the planets follow in the week, and their arrangement in the heavens. Plutarch gives a reaſon for this diſplacing. His work is loſt. The title only remains. I ſhall not ſtop to explain the motives alledged by the aſtrologers, motives founded on the power which they attribute to each planet over each hour of the day, by beginning with that of noon. It ſuffices to mention ſuch explications, to ſhew all the ridicule of them.

[a] Herod. l. 2. n. 82.; Dion. Caſſius, Rom. hiſt. l. 37. p. 42. edit. 1592.
[a] Salmaſ. *de* an. climact. p. 595. & 596.
[b] See part 1. b. 3. p. 217. & 218.

The End of the SECOND VOLUME.

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Government of Maharashtra
on 25 June, 2016